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ABSTRACT

A package of information was developed to inform vocational, technical, and adult education teachers how to find information relevant to their occupational interests. Instructions were provided for the use of three indexes: Government Reports Announcements (GRA), Government Reports Index (GRI), and National Technical Information service (NTIS). GRA and GRI combine to afford the user access to government documents covering 22 subject fields. Documents are indexed by corporate author, subject, and personal author, contract number, accession report number. NTIS employs the same indexing system for documents concerning vocational, technical, and adult education, but as yet, the system has been sparsely used. Included is the script from a slide/tape presentation intended to increase interest in NTIS. (EMH)

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Developing Self-Instructional Materials for NTIS Users

Beulah C. Howison

Principal Investigator

Instructional Technology Services

University of Wisconsin-Stout

NOV 5 1975

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OBJECTIVES

NTIS For Vocational Educators

The learner will:

1. Become aware of the potential value to him of the NTIS system.

2. Develop the concept of the vocational teacher as the catalyst between the business and manufacturing community and the research of importance to this community.

3. Be motivated to study the NTIS Handbook to learn how to access these reports.

N.T.I.S

for

Vocational Educators

(Slide/tape presentation)

Produced by:

Learning Resources

University of Wisconsin-Stout

Menomonie, Wisconsin

SUGGESTIONS FOR USE

This slide/tape presentation can be used in two ways:

1. The audible advance tones side of the cassette allows you to show the presentation with a carousel projector and any cassette player where you manually advance the next slide each time you hear a tone.

2. The inaudible advance tones side of the cassette can be used to automatically advance the slides when you are using a tape recorder that has this feature. The tape recorder should be one that automatically advances a carousel projector using 1000 Hz. tones on the second track (ex. Wollensak 2551-AV).

SLIDE	TAPE
1. FOCUS Advance 1 frame and- start sound	
2. Blank	
3.	(Voices of Astronauts)
4.	(Voices of Astronsuts)
5.	(Voices of Astronauts)
6.	(Jet take-off) The past half century has seen technological changes that would boggle the minds of our forefathers.
7.	Since the historic flight at Kitty Hawk, research and technical experiments initiated and paid for by federal tax dollars,
8.	Have led us to take our first steps on the moon. That same research,

9. along with a lot of other federally paid for data in every imaginable field, can be at your finger tips for examination at will.

10. The National Technical Information Service is a central source for the public sale of unclassified government sponsored research and technical data - this data has been prepared by Federal Agencies, or private enterprises while under contract with the Federal Government.

11. The Goal of NTIS is "to foster, serve, and promote the Nation's economic development and technical advancement" by making these technical reports and research available in a readily accessible format.

12. The Question then comes to mind: "how can NTIS help my classroom situation? Well... Let's step into an instructor's shoes for a moment.

13. 1st Instructor: Hey Jack!! You got a couple of minutes?

2nd Instructor: Ya---what's up!!!!

1st Instructor: How are we going to handle that Emission Control Unit that the director asked us to include in the basic auto course?

14. 2nd Instructor: I don't know, I haven't even had time to think about that. I've got too many other irons in the fire, half of which are things I have to complete for him. I don't know where he expects us to find the time.

15. 1st Instructor: You know, the problem with directives like that one is the unbelievable amount of time that you have to spend searching the card catalog and the stacks for information.

16. And then, I swear, a lot of the data is stuff that was published around the time of the Model "T".

17. 1st Instructor: Hey - you know Bob Worthly...the new instructor over in small engines?

2nd Instructor: Ya - what about him?

18. 1st Instructor: Well, you know...we've had maybe 5 or 6 directives like this in the past year. Well...Bob has always got that stuff done and on the director's desk in just a couple of weeks. I can't figure it. He spends less time here in the library researching than I do.

19. 2nd Instructor: I know!!! Have you seen his course outlines? Like that one on the new small wankle engine.

1st Instructor: Ya - he's really on top of it.

20. You know, when Bob is over here, he spends a lot of time at that machine over there. Do you suppose what he is finding is on microfilm?

21. 2nd Instructor: Ya, Come to think of it, I've got one of his students in my 5th section lab on Monday and Wednesday. That kid was talking about some assignments that they've been getting from Bob to do with some Technical Information Service on microfilm. Why don't we check with the Reference Librarian, she might be able to help us.

(audio fade out)

(bring up Narrator)

22. Narrator:
Imagine the time those instructors could have saved in gathering technical data had they known about NTIS.

23. NTIS publishes two bi-monthly reports; the Government Reports Announcements and Government Reports Index.

24. The Government Reports Announcements divides Government Sponsored Research and Technical Data into 22 major subject fields.

Looking for something about Solar energy?

25. Check out Field Number 10.

26. Fold the book lengthwise, so as to fan out the edges of the pages. Place your thumb at the tab in line with Energy Conversion....and flop the book open.

27. Now you have a complete listing of all data including abstracts that were released by the government during any given month.

28. For example: Energy Plantations: Should we grow trees for power plant fuel

29. or, fuel cells. Direct conversion of electrochemical energy into electricity.

30. Let's try a different subject - say.... water pollution.
There is this article.....

31. Or this one.....

32. The Government Reports Index is published concurrently with the GRA and contains the same information as the GRA.

33. The difference is that the GRI indexes the same information five different ways. Corporate author, subject - which is a condensed version of the GRA, personal author, government contract number, and accession number or report number. For instance, you are looking for an article about energy published by the Arizona State Fuel and Energy Office.

34. You will find the Arizona State Fuel and Energy Office listed alphabetically in the corporate author index accompanying this listing we find the title of the article. "Putting the Sun to Work" - note that it is listed under subject #13A in GRA. So 13A could become another source for your research.

35. Or, if you know the name of the author look in the author index.

36. Know the Government Contract Number? Try the contract number index.

37. And finally, entries are listed by accession number should you have only the number and can't remember what the article title was.

38. For more specifics on the use of NTIS documents, refer to the NTIS Handbook which we have prepared to assist you in the use of GRI and GRA manuals.

39. Government data gathered and systematized by NTIS covers every subject imaginable.

Need information about drug abuse.....

40. NTIS has got it.

41. A topic dealing with noise pollution?

42. Or possibly air pollution?

43. How about sewage treatment?

44. Reports on auto crash tests lets you know what advancements the automobile industry is making in the area of safety.

45. Research on the effects of alcohol on performance can more clearly point out the real cost of drug abuse.

46. Information on the job training is important especially during periods of high unemployment.

47. Would you like to be exposed to the versatility of plastics?

48. Or more clearly understand the implications the field of foods has on our daily lives.

49. The broad field of fibers and textiles ranges from matters of style and color to life and death application - such as fireproof clothing and space suits for astronauts.

50. And of course truth in advertising effects everyone.

51. As crime continues to rise the development in police science may be of particular interest.

52. Hydraulic and pneumatic technology along with fluid mechanics may show you a more efficient way to get a job done.

53. These are but a few of the many, many areas dealth with in NTIS.

54. NTIS in conjunction with the agency for International Development has recently made U.S. Government research available to underdeveloped countries in South America and the Far East.

55. If this information can be useful abroad, it certainly could be valuable to the many small businesses in our communities who can't afford to employ a research staff. You could be the catalyst in providing millions of dollars worth of research to these small businesses.

56. So - let's stop re-inventing the wheel and help our students, community, businesses, and ourselves find and make use of the most current government data available.

57. There are many new things under the sun. If you have a technical problem, more likely than not, the solution to that problem already exists.

58. Try NTIS - maybe....just maybe, you'll like it.

59. Blank (Voice of Houston in conversation with astronauts)

60. Credit Slide (Voice of Houston in conversation with astronauts)

61. Credit Slide (Voice of Houston in conversation with astronauts)

62. Credit Slide (Voice of Houston in conversation with astronauts)

63. Blank (Voices under)

NTIS handbook

how to use • government reports announcements
government reports index

Designed and Produced
by
Learning Resources
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

March, 1975

Pursuant to a grant
from the Wisconsin State Board of VTAE

GLOSSARY

The following are terms which you may want to refer back to for definition as you read this handbook.

ACCESSION NUMBER	"The number assigned to a report in the order of its acquisition."[1]
ALPHA-NUMERICALLY	Consisting of both letters and numbers.
COSATI	Committee on Scientific and Technical Information.
CONCEPT	"A rule for classifying objects by examining their descriptions."[2]
CORPORATE AUTHOR	"A work is said to be of corporate authorship when the responsibility for its content, expression and opinions rests with a society, institution, government or other corporate body and not with a personal author."[3]
DESCRIPTORS	"Any key word, group of key words, defined concept, subject heading, or other descriptive label assigned to an item in the process of listing its characteristics is a descriptor."[2]
EDSU	Engineering Sciences Data Unit, Royal Aeronautical Society, London, England.
GRA	Government Reports Announcements
GRI	Government Reports Index
IDENTIFIERS	Are specific in nature and are used to describe the content of a document.
NTIS	National Technical Information Service

[1]American Library Association. Editorial Committee. Subcommittee on Library Terminology. A.L.A. Glossary of Library Terms. Chicago, The Association, 1943.

[2]Meetham, A.R., ed. Encyclopaedia of Linguistics, Information, and Control. Oxford, Pergamon Press, 1969.

[3]Landau, Thomas, ed. Encyclopaedia of Librarianship. London, Bowes and Bowes, 1958.

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GOVERNMENT REPORTS

ANNOUNCEMENTS

January 24, 1975

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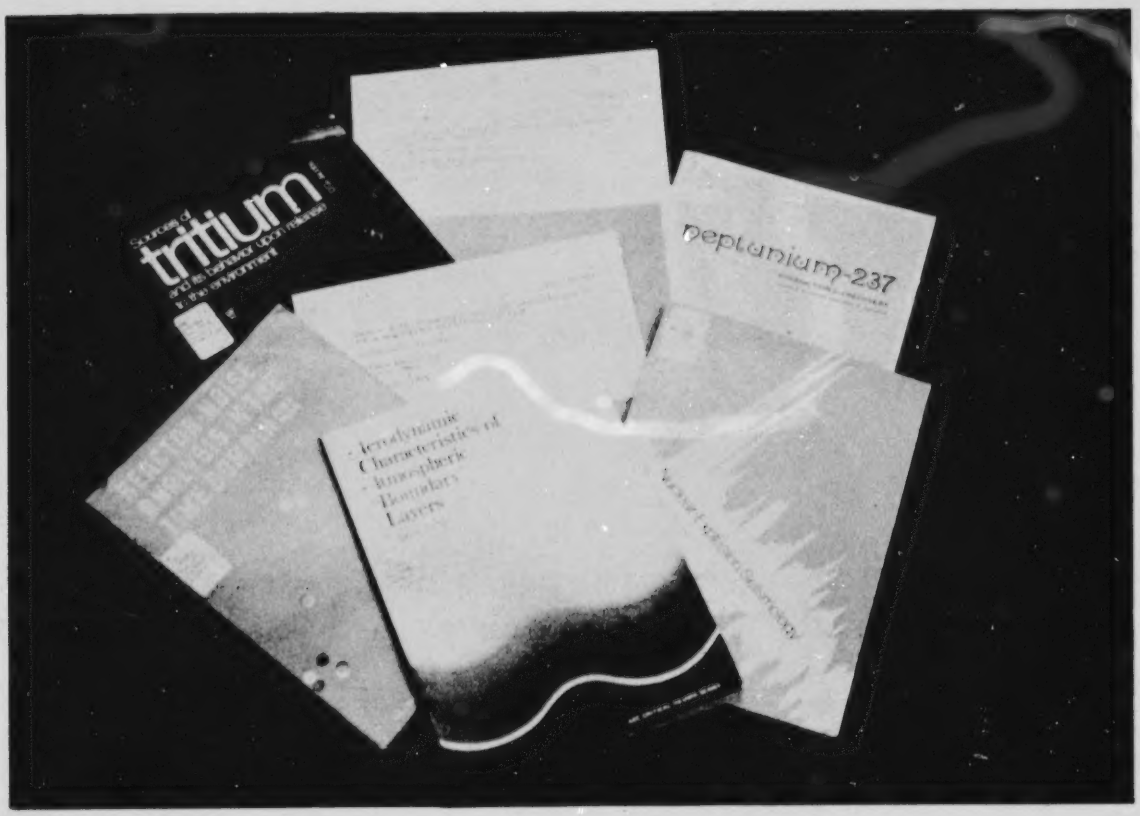
NTIS U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

Fig. 1

NTIS

National Technical Information Service

The National Technical Information Service (NTIS) is the central source for the public sale of Government-sponsored research and development reports, and other government analyses prepared by Federal agencies, their contractors or grantees. The NTIS collection now exceeds 730,000 titles, to which some 60,000 new reports are added annually. These reports contain new information vital to fields like the environment, energy, electronics, the behavioral sciences, biological and medical sciences, and many more.



GRA

Government Reports Announcements

GRA is published twice a month by NTIS to provide public access to new report literature as it becomes available. The listings include title, author, price, and in most cases, concise abstracts.

Fig. 1 is a copy of the cover of one issue of GOVERNMENT REPORTS ANNOUNCEMENTS.

SUBJECT FIELD AND GROUP STRUCTURE

(Use Edge Index on back cover to locate subject field in the journal)

FIELD 1. AERONAUTICS. Includes the following Groups: Aerodynamics; Aeronautics; Aircraft; Aircraft Flight Control and Instrumentation; Air Facilities.

FIELD 2. AGRICULTURE. Includes the following Groups: Agricultural Chemistry; Agricultural Economics; Agricultural Engineering; Agronomy and Horticulture; Animal Husbandry; Forestry.

FIELD 3. ASTRONOMY AND ASTROPHYSICS. Includes the following Groups: Astronomy; Astrophysics; Celestial Mechanics.

FIELD 4. ATMOSPHERIC SCIENCES. Includes the following Groups: Atmospheric Physics; Meteorology.

FIELD 5. BEHAVIORAL AND SOCIAL SCIENCES. Includes the following Groups: Administration and Management; Documentation and Information Technology; Economics; History, Law, and Political Science; Human Factors Engineering; Humanities; Linguistics; Man-machine Relations; Personnel Selection, Training, and Evaluation; Psychology (Individual and Group Behavior); Sociology.

FIELD 6. BIOLOGICAL AND MEDICAL SCIENCES. Includes the following Groups: Biochemistry; Bioengineering; Biology; Bionics; Clinical Medicine; Environmental Biology; Escape, Rescue, and Survival; Food, Hygiene and Sanitation; Industrial (Occupational) Medicine; Life Support; Medical and Hospital Equipment; Microbiology; Personnel Selection and Maintenance (Medical); Pharmacology; Physiology; Protective Equipment; Radiobiology; Stress Physiology; Toxicology; Weapon Effects.

FIELD 7. CHEMISTRY. Includes the following Groups: Chemical Engineering; Inorganic Chemistry; Organic Chemistry; Physical Chemistry; Radio and Radiation Chemistry.

FIELD 8. EARTH SCIENCES AND OCEANOGRAPHY. Includes the following Groups: Biological Oceanography; Cartography; Dynamic Oceanography; Geochemistry; Geodesy; Geography; Geology and Mineralogy; Hydrology and Limnology; Mining Engineering; Physical Oceanography; Seismology; Snow, Ice, and Permafrost; Soil Mechanics; Terrestrial Magnetism.

FIELD 9. ELECTRONICS AND ELECTRICAL ENGINEERING. Includes the following Groups: Components; Computers; Electronic and Electrical Engineering; Information Theory; Subsystems; and Telemetry.

FIELD 10. ENERGY CONVERSION (Non-propulsive). Includes the following Groups: Conversion Techniques; Power Sources; Energy Storage.

FIELD 11. MATERIALS. Includes the following Groups: Adhesives and Seals; Ceramics, Refractories, and Glasses; Coatings, Colorants, and Finishes; Composite Materials; Fibers and Textiles; Metallurgy and Metallography; Miscellaneous Materials; Oils, Lubricants, and Hydraulic Fluids; Plastics; Rubbers; Solvents, Cleaners, and Abrasives; Wood and Paper Products.

FIELD 12. MATHEMATICAL SCIENCES. Includes the following Groups: Mathematics and Statistics; Operations Research.

FIELD 13. MECHANICAL, INDUSTRIAL, CIVIL, AND MARINE ENGINEERING. Includes the following Groups: Air Conditioning, Heating, Lighting, and Ventilating; Civil Engineering; Construction Equipment, Materials, and Supplies; Containers and Packaging; Couplings, Fittings, Fasteners, and Joints; Ground Transportation Equipment; Hydraulic and Pneumatic Equipment; Industrial Processes; Machinery and Tools; Marine Engineering; Pumps, Filters, Pipes, Fittings, Tubing, and Valves; Safety Engineering; Structural Engineering.

FIELD 14. METHODS AND EQUIPMENT. Includes the following Groups: Cost Effectiveness; Laboratories, Test Facilities, and Test Equipment; Recording Devices; Reliability; Reprography.

FIELD 15. MILITARY SCIENCES. Includes the following Groups: Antisubmarine Warfare; Chemical, Biological, and Radiological Warfare; Defense; Intelligence; Logistics; Nuclear Warfare; Operations, Strategy, and Tactics.

FIELD 16. MISSILE TECHNOLOGY. Includes the following Groups: Missile Launching and Ground Support; Missile Trajectories; Missile Warheads and Fuses; Missiles.

FIELD 17. NAVIGATION, COMMUNICATIONS, DETECTION, AND COUNTERMEASURES. Includes the following Groups: Acoustic Detection; Communications; Direction Finding; Electromagnetic and Acoustic Countermeasures; Infrared and Ultraviolet Detection; Magnetic Detection; Navigation and Guidance; Optical Detection; Radar Detection; Seismic Detection.

FIELD 18. NUCLEAR SCIENCE AND TECHNOLOGY. Includes the following Groups: Fusion Devices (Thermonuclear); Isotopes; Nuclear Explosions; Nuclear Instrumentation; Nuclear Power Plants; Radiation Shielding and Protection; Radioactive Wastes and Fission Products; Radioactivity; Reactor Engineering and Operation; Reactor Materials; Reactor Physics; Reactors (Power); Reactors (Non-power); SNAP Technology.

FIELD 19. ORDNANCE. Includes the following Groups: Ammunition, Explosives, and Pyrotechnics; Bombs; Combat Vehicles; Explosions, Ballistics, and Armor; Fire Control and Bombing Systems; Guns; Rockets; Underwater Ordnance.

FIELD 20. PHYSICS. Includes the following Groups: Acoustics; Crystallography; Electricity and Magnetism; Fluid Mechanics; Masers and Lasers; Optics; Particle Accelerators; Particle Physics; Plasma Physics; Quantum Theory; Solid Mechanics; Solid-state Physics; Thermodynamics; Wave Propagation.

FIELD 21. PROPULSION AND FUELS. Includes the following Groups: Air-breathing Engines; Combustion and Ignition; Electric Propulsion; Fuels; Jet and Gas Turbine Engines; Nuclear Propulsion; Reciprocating Engines; Rocket Motors and Engines; Rocket Propellants.

FIELD 22. SPACE TECHNOLOGY. Includes the following Groups: Astronautics; Spacecraft; Spacecraft Trajectories and Reentry; Spacecraft Launch Vehicles and Ground Support.

Fig. 2

SUBJECT FIELDS AND GROUP STRUCTURE

GRA is divided into twenty-two subject fields. Fig. 2 is a copy of page iv in the issue of January 24, 1975, showing the fields. These fields were selected by the Committee on Scientific and Technical Information (COSATI). Each field is numbered, and further subdivided into groups.

For example (Fig. 2):

Field 13:
Mechanical, Industrial, Civil, and Marine Engineering

Groups:
Air Conditioning, Heating, Lighting, and Ventilation
Construction Equipment, Materials, and Supplies
Containers and Packaging
Couplings, Fittings, Fasteners, and Joints

ETC.

Listing the reports by subject content reduces the time and effort needed to find pertinent information. In addition, it enables you to scan briefly and quickly the new literature in areas of special interest.

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National Technical Information Service

Fig. 3

GRI

Government Reports Index

The GOVERNMENT REPORTS INDEX (GRI) is published concurrently with the GRA and indexes the corresponding issue by Corporate Author, Subject, Personal Author, Contract Number, and Accession/Report Number. Fig. 3 is a copy of the cover of an issue of GRI. Fig. 4 is a copy of the Table of Contents indicating the pages for each separate index.

GOVERNMENT REPORTS INDEX

Volume 75, Number 2 • • • January 24, 1975

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SUBJECT INDEX SU-1

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Bibliographic citations and abstracts for documents included in this index are published in the corresponding issue of the Government Reports Announcements.

Fig. 4

ABSORBERS (EQUIPMENT)
Pilot Plant Study of an Ammonia Absorption-Ammonium Bisulfate Regeneration Process. Topical Report Phases I and II
PB-237 170/6GI 7A

ABSORBERS (MATERIALS)
Application of Infrared Absorbers to Nylon 6,6
AD/A-000 832/6GI 11C

ABSORPTION
Absorption Coefficient Measurements of CO2 HDO N2, and C H4 Air Using a DF Laser
AD/A-001 097/5GI 7D

ABSORPTION SPECTRA
On Absorption in the Direction of WSI
N74-34381/9GI 1B

ABSTRACTS
Laser Interactions. Abstracts of Papers Presented at the Conference on Interactions of the Interplanetary Plasma with the Modern and Ancient Moon
N74-34277/5GI 1B

ACCELERATION (PHYSICS)
Evaluation of Importance of Lateral Acceleration Derivatives in Estimation of Lateral-Directional Derivatives at High Angles of Attack
N74-33451/7GI 1A

ACCELERATION TOLERANCE
Reprint: Effects of Rehydration on Positive Acceleration Tolerance After 14-Days Bed Rest
AD/A-001 324/1GI 6S

ACCELEROMETERS
Agard Flight Test Instrumentation Series. Volume 6. Open and Closed Loop Accelerometers.
N74-33048/2GI 1C

ACCIDENT INVESTIGATIONS
Special Study of Fatal, Weather - Involved, General Aviation Accidents
PB-237 752/1GI 1B

ACCIDENT POTENTIAL
Pilot Accident Potential as Related to Total Flight Experience and Recency and Frequency of Flying
AD/A-001 256/7GI 5I

ACCIDENTS
SS V. A. FOGG, Sinking in the Gulf of Mexico on 1 February 1972 with Loss of Life.
AD/A-000 819/0GI 13L

Significance of Wind Direction Variability for Estimating the Location of the Contaminated Sector after Accidents with Noxious Materials de Betekenis van de Veranderlijkheid van de Windrichting voor Schattingen van de Ligging van Het Besmette Gebied NA Ongevallen Met Schadelijke Stoffen
N74-34124/9GI 13B

ACCURACY
The Precise Measurement of Small Gravity Differences ein Genaue Messung von Kleinen Schwereunterschieden
N74-33906/5GI 8P

Accuracy of Attitude Control Systems for Satellites Using Double Gimballed Momentum Wheels
N74-34354/2GI 22B

ACETYLCHOLINESTERASE
Catalysis by Acetylcholinesterase. Substrate-Mediated Perturbations
AD/A-001 302/4GI 6A

ACIDS
Low Molecular Organic Acids in SOD-Podsol Forest Soils
N74-33406/6GI 8M

An Investigation of Changes in the Chemical Composition of Lowland Peat in the Process of Self-Heating 7. The Formation of Organic Acids.
N74-33607/4GI 7C

ACOUSTIC ARRAYS
TRAPP Vertical Array
AD/A-001 130/4GI 17A

ACOUSTIC EQUIPMENT
Reprint: New Adaptive-Signal-Processing Concept
AD/A-001 053/8GI 9E

ACOUSTIC MEASUREMENTS
Effect of Rotor-to-Stator Spacing on Acoustic Performance of a Full-Scale Fan (QF-5) for Turbofan Engines.
N74-33439/2GI 21E

Static Noise Tests on Augmentor Wing Jet STOL Research Aircraft (CIs Buffalo)
N74-33455/8GI 1A

Test of Acoustic Tone Source and Propulsion Performance of CIs Buffalo Suppresser Nozzle
N74-33456/6GI 1A

ACOUSTIC PROPERTIES
Further Analysis of Broadband Noise Measurements for a Rotating Blade Operating with and Without Its Shed Wake Blown Downstream
N74-33434/3GI 1A

ACOUSTIC SIGNALS
Reprint: Effect of a Boussby Wave on the Phase of an Underwater Acoustic Signal
AD/A-001 168/4GI

ACOUSTIC SURFACE WAVE DEVICES
Reprint: 16-Channel Surface Acoustic Wa
Filter Bank for Real-Time Spectra Analys
AD/A-001 052/0GI

Reprint: Surface State Memory
Acoustoelectric Correlator
AD/A-001 058/7GI

ACOUSTIC SURFACE WAVES
Piezoelectric Surface Waves on LiNbO3,
AD/A-001 568/5GI

SH Mode Piezoelectric Surface Waves
Cuts.
AD/A-001 569/3GI

ACOUSTIC TORPEDOES
Weapons System Introduction: Need
Charade
AD/A-001 299/7GI 19E

ACOUSTIC VELOCITY
Equations for the Prediction of Sound Speed in the Mediterranean Sea. Volume II. Upper 500 Meters
AD/A-001 270/8GI

Fluctuations of the Travel Time of a
Deep Ocean.
JPRS-63311

ACOUSTOOPTICS
Acousto-Optic Beam Sampler. Part 2: Gi
tion Solution to Acousto-Optic Interactio
AD/A-001 553/7GI

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Role of Plastic Deformations and Po
polymerization of Acrylamide under S
pression-Translation.
AD/A-001 173/4GI

ACTINOMETERS
NO2 Actinometer for Field Use.
PB-237 745/5GI

ACTUATORS
Comparison with Regard to the Economy of a Digital and an Analog Electro-Hydraulic Actuator
N74-33457/6GI 1C

Contribution to the Dynamic Behavior of a Digital Electro-hydraulic Actuator
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ADAP (AIRPORT DEVELOPMENT AID PR
Alternatives to the Airport Developme
gram.
AD/A-001 348/2GI

ADAP Aid to Private Airports: A Pre
sessment and Related Questions for Res
AD/A-001 349/8GI

Airport Opposition: Examination a
Development.
AD/A-001 350/6GI

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AD/A-001 301/6GI

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to Metal
AD/A-001 554/5GI

ADHESIVES
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AD/A-001 335/9GI

Shuttle Active Thermal Control Syste
ment Testing. Volume 7: Improved Rad
Adhesive Tests.
N74-34347/6GI

Development of a Rapid Set Epoxy A
California Highway Markers.
PB-237 297/7GI

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Diamagnetic Probe Measurements of a
Mesures Diamagnetiques d'UN Ibeta Pin
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PB-237 040/1GI 13B

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An Evaluation of the Effectiveness of Automobile Engine Adjustments to Reduce Exhaust Emissions and An Evaluation of the Training Required to Develop Personnel Competent to Make the Adjustments.
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An Evaluation of the Effectiveness of Automobile Engine Adjustments to Reduce Exhaust Emissions and An Evaluation of the Training Required to Develop Personnel Competent to Make the Adjustments.
PB-237 040/1GI 13B

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An Evaluation of the Effectiveness of Automobile Engine Adjustments to Reduce Exhaust Emissions and An Evaluation of the Training Required to Develop Personnel Competent to Make the Adjustments.
PB-237 040/1GI 13B

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AD/A-001 097/5GI 7D

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N74-34277/5GI 1B

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Evaluation of Importance of Lateral Acceleration Derivatives in Estimation of Lateral-Directional Derivatives at High Angles of Attack
N74-33451/7GI 1A

ACCELERATION TOLERANCE
Reprint: Effects of Rehydration on Positive Acceleration Tolerance After 14-Days Bed Rest
AD/A-001 324/1GI 6S

ACCELEROMETERS
Agard Flight Test Instrumentation Series. Volume 6. Open and Closed Loop Accelerometers.
N74-33048/2GI 1C

ACCIDENT INVESTIGATIONS
Special Study of Fatal, Weather - Involved, General Aviation Accidents
PB-237 752/1GI 1B

ACCIDENT POTENTIAL
Pilot Accident Potential as Related to Total Flight Experience and Recency and Frequency of Flying
AD/A-001 256/7GI 5I

ACCIDENTS
SS V. A. FOGG, Sinking in the Gulf of Mexico on 1 February 1972 with Loss of Life.
AD/A-000 819/0GI 13L

Significance of Wind Direction Variability for Estimating the Location of the Contaminated Sector after Accidents with Noxious Materials de Betekenis van de Veranderlijkheid van de Windrichting voor Schattingen van de Ligging van Het Besmette Gebied NA Ongevallen Met Schadelijke Stoffen
N74-34124/9GI 13B

ACCURACY
The Precise Measurement of Small Gravity Differences ein Genaue Messung von Kleinen Schwereunterschieden
N74-33906/5GI 8P

Accuracy of Attitude Control Systems for Satellites Using Double Gimballed Momentum Wheels
N74-34354/2GI 22B

ACETYLCHOLINESTERASE
Catalysis by Acetylcholinesterase. Substrate-Mediated Perturbations
AD/A-001 302/4GI 6A

ACIDS
Low Molecular Organic Acids in SOD-Podsol Forest Soils
N74-33406/6GI 8M

An Investigation of Changes in the Chemical Composition of Lowland Peat in the Process of Self-Heating 7. The Formation of Organic Acids.
N74-33607/4GI 7C

ACOUSTIC ARRAYS
TRAPP Vertical Array
AD/A-001 130/4GI 17A

ACOUSTIC EQUIPMENT
Reprint: New Adaptive-Signal-Processing Concept
AD/A-001 053/8GI 9E

ACOUSTIC MEASUREMENTS
Effect of Rotor-to-Stator Spacing on Acoustic Performance of a Full-Scale Fan (QF-5) for Turbofan Engines.
N74-33439/2GI 21E

Static Noise Tests on Augmentor Wing Jet STOL Research Aircraft (CIs Buffalo)
N74-33455/8GI 1A

Test of Acoustic Tone Source and Propulsion Performance of CIs Buffalo Suppresser Nozzle
N74-33456/6GI 1A

ACOUSTIC PROPERTIES
Further Analysis of Broadband Noise Measurements for a Rotating Blade Operating with and Without Its Shed Wake Blown Downstream
N74-33434/3GI 1A

ACOUSTIC SIGNALS
Reprint: Effect of a Boussby Wave on the Phase of an Underwater Acoustic Signal
AD/A-001 168/4GI

ACOUSTIC SURFACE WAVE DEVICES
Reprint: 16-Channel Surface Acoustic Wa
Filter Bank for Real-Time Spectra Analys
AD/A-001 052/0GI

Reprint: Surface State Memory
Acoustoelectric Correlator
AD/A-001 058/7GI

ACOUSTIC SURFACE WAVES
Piezoelectric Surface Waves on LiNbO3,
AD/A-001 568/5GI

SH Mode Piezoelectric Surface Waves
Cuts.
AD/A-001 569/3GI

ACOUSTIC TORPEDOES
Weapons System Introduction: Need
Charade
AD/A-001 299/7GI 19E

ACOUSTIC VELOCITY
Equations for the Prediction of Sound Speed in the Mediterranean Sea. Volume II. Upper 500 Meters
AD/A-001 270/8GI

Fluctuations of the Travel Time of a
Deep Ocean.
JPRS-63311

ACOUSTOOPTICS
Acousto-Optic Beam Sampler. Part 2: Gi
tion Solution to Acousto-Optic Interactio
AD/A-001 553/7GI

ACRYLAMIDE
Role of Plastic Deformations and Po
polymerization of Acrylamide under S
pression-Translation.
AD/A-001 173/4GI

ACTINOMETERS
NO2 Actinometer for Field Use.
PB-237 745/5GI

ACTUATORS
Comparison with Regard to the Economy of a Digital and an Analog Electro-Hydraulic Actuator
N74-33457/6GI 1C

Contribution to the Dynamic Behavior of a Digital Electro-hydraulic Actuator
N74-33458/2GI 1C

ADAP (AIRPORT DEVELOPMENT AID PR
Alternatives to the Airport Developme
gram.
AD/A-001 348/2GI

ADAP Aid to Private Airports: A Pre
sessment and Related Questions for Res
AD/A-001 349/8GI

Airport Opposition: Examination a
Development.
AD/A-001 350/6GI

ADAPTERS
Conical Isogrid Adapter Structural Test
pendix C: Cylindrical Isogrid Structures
N74-34365/8GI

ADENYL ACIDS
Adenosine 3',5' Monophosphate in Pla
crease Associated with Anticholinestera
AD/A-001 301/6GI

ADHESIVE BONDING
Application of Instrument Monitoring and Control
Devices for the Precision Alignment of
to Metal
AD/A-001 554/5GI

ADHESIVES
Fracturing Characteristics of Adhesive J
AD/A-001 335/9GI

Shuttle Active Thermal Control Syste
ment Testing. Volume 7: Improved Rad
Adhesive Tests.
N74-34347/6GI

Development of a Rapid Set Epoxy A
California Highway Markers.
PB-237 297/7GI

ADIABATIC CONDITIONS
Diamagnetic Probe Measurements of a
Mesures Diamagnetiques d'UN Ibeta Pin
N74-34284/9GI

ADJUSTING
An Evaluation of the Effectiveness of Automobile Engine Adjustments to Reduce Exhaust Emissions and An Evaluation of the Training Required to Develop Personnel Competent to Make the Adjustments.
PB-237 040/1GI 13B

ADOLESCENCE
Reprint: Intermolecular Energy Transfer in the
AD/A-001 450/6GI 8A

AEQUORIN
Reprint: Intermolecular Energy Transfer in the

N74-34314/6GI 22B

Stability and Control Characteristics for the Inner Mold Line Configuration of the Space Shuttle Orbiter (OA110)
N74-34320/3GI 22B

N74-33476/4GI 21E

AERODYNAMIC HEATING

Fig. 5

GRI SUBJECT INDEX

Usually, we are searching for information about a certain subject, so we will begin with the subject index. Entries in the subject index are arranged by major subject terms and then within the subject term by accession number.

The selection of descriptors, or key words, is a process that requires thought and careful consideration of all possible terms under which a report might be listed. For an example of this process, suppose we need to find an evaluation of the effectiveness of automobile engine adjustments in the reduction of exhaust emissions. Some of the possible key words could be: automobile engines, exhaust emissions, adjustments, air pollution. Undoubtedly you can think of other terms.

The next step is to turn to the subject index in GRI. The sample Table of Contents on page 7 (Fig. 4) shows the subject index beginning on page SU-1. You can find a sample of page SU-1 on page 8 of this book, as Fig. 5.

Inserts have been added to this copy of the first page of the subject index from the issue of January 24, 1975 to illustrate a few of the terms under which the study, " An Evaluation of the Effectiveness of Automobile Engine Adjustments to Reduce Exhaust Emissions and an Evaluation of the Training Required to Develop Personnel Competent to Make the Adjustments" is indexed. They are: Air Pollution Abatement, Adjusting, Automobile Engines, Exhaust Emissions, and Minimum Pollution Capability Tuneups.

Refer to the term Exhaust Emissions in one of the inserts. The citation lists the title of the report; the accession number, PB-237 040/1GI; the field, 13, and the group, B.

COSATI Subject Fields

- 1 AERONAUTICS
- 2 AGRICULTURE
- 3 ASTRONOMY AND ASTROPHYSICS
- 4 ATMOSPHERIC SCIENCES
- 5 BEHAVIORAL AND SOCIAL SCIENCES
- 6 BIOLOGICAL AND MEDICAL SCIENCES
- 7 CHEMISTRY
- 8 EARTH SCIENCES AND OCEANOGRAPHY
- 9 ELECTRONICS AND ELECTRICAL ENGINEERING
- 10 ENERGY CONVERSION (NON-PROPULSIVE)
- 11 MATERIALS
- 12 MATHEMATICAL SCIENCES
- 13 MECHANICAL, INDUSTRIAL, CIVIL, AND MARINE ENGINEERING
- 14 METHODS AND EQUIPMENT
- 15 MILITARY SCIENCES
- 16 MISSILE TECHNOLOGY
- 17 NAVIGATION, COMMUNICATIONS, DETECTION, AND COUNTERMEASURES
- 18 NUCLEAR SCIENCE AND TECHNOLOGY
- 19 ORDNANCE
- 20 PHYSICS
- 21 PROPULSION AND FUELS
- 22 SPACE TECHNOLOGY

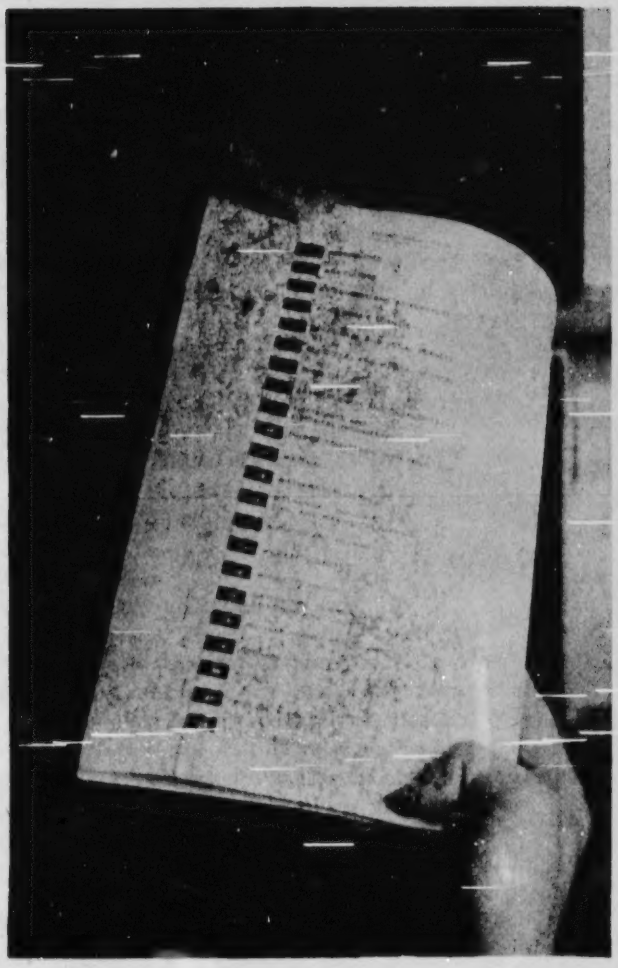


Fig. 6

FINDING THE CITATION
BY FIELD, GROUP, AND ACCESSION NUMBER IN GRA

To find the entry for this report, PB-237 040/1GI, we shall need the GRA for the same date, January 24, 1975.

Turn to the back cover of the GRA issue (Fig. 6). The back cover of each issue lists the COSATI subject fields. Find Field 13: Mechanical, Industrial, Civil, and Marine Engineering. Fan out the black lined edge index to turn immediately to Field 13. Fig. 7 is a copy of one of the pages you will find.

7

celeration performance using special procedures for large trucks. Hydrocarbons, carbon monoxide, nitrogen oxides, and aldehydes were monitored.

PB-236 915/5GA PC$5.75/MF$2.25
Lake Tahoe Area Council, South Lake Tahoe, Calif.
INVENTORY OF RESEARCH ACTIVITIES IN THE LAKE TAHOE AREA, 1878-1974,
J. R. Jones, and J. D. Stuart. Jul 74, 127p
NSF/RA/G-74/017
Grant NSF-GT-39556

Descriptors: *Regional planning, *Lake Tahoe, *Pollution, Air pollution, Water quality, Land use, Vegetation, Wildlife, Animals, Sociology, Economic development, Allocations, Inventories, California.

The Lake Tahoe Basin, a unique natural resource, is the focal point of considerable research and discussion. To meet this need, the Lake Tahoe Area Research Coordination Board was established, to develop an integrated list of research needs for the Lake Tahoe Basin and to provide technical assistance for researchers and planners. An important first task to accomplish was an inventory of current and past research activities relevant to the Basin. Articles having a direct bearing on past or present research activities were included in this first edition of the inventory, as well as documents related to Lake Tahoe which might be of value to research, planning, or management entities. The inventory is divided into seven major research areas: air; land; water; vegetation; animal life; socio-economic; and resource allocation.

PB-236 921/3GA PC$3.75/MF$2.25
Environmental Protection Agency, Research Triangle Park, N.C. Office of Air Quality Planning and Standards.
SYSTEMS AND COSTS TO CONTROL HYDROCARBON EMISSIONS FROM STATIONARY SOURCES.
Sep 74, 48p* EPA-450/2-74-006

Descriptors: *Air pollution, *Hydrocarbons, Air pollution control, Incinerators, Temperature control, Cost analysis, Organic solvents, Gasoline service stations, Dry cleaning, Spray painting, Degreasing, Prevention, Vapors, Petroleum refining, Carbon monoxide, Carbon black, Industrial wastes, Printing inks, Materials recovery, Tetrachloroethylene.
Identifiers: Stoddard solvents, Gasoline transfer, Petrochemical industry.

Costs associated with techniques for controlling hydrocarbon emissions from certain important stationary sources are discussed. Sources discussed include organic solvent usage, petroleum refining and marketing, and certain petrochemical manufacturing operations.

PB-236 922/1GA PC$3.25/MF$2.25
Southern Research Inst., Birmingham, Ala.
SODIUM CONDITIONING TO REDUCE FLY ASH RESISTIVITY.
Final rept.,
R. E. Bickelhaupt. Oct 74, 15p SORI-EAS-74-320
EPA/650/2-74-092
Grant EPA-68-02-0284

Descriptors: *Fly ash, *Electrical resistivity, *Air pollution, *Sodium, Electrostatic precipitation, Coal, Particles, Boilers, Additives, Treatment.
Identifiers: Air pollution control.

The resistivity of fly ash is often too high under a particular set of operating conditions to permit the most efficient use of an electrostatic precipitator. A variety of substances, generally referred to as conditioning agents, can be added to the boiler or to the effluent gas downstream to attenuate the high resistivity. The report gives results of a review of recent research, including the results of two field tests of sodium conditioning, on the effects of sodium content on the electrical resistivity of coal fly ash. It presents a procedure for calculating the amount of sodium that must be added to reduce fly ash electrical resistivity to a desired value. It discusses advantages and disadvantages of sodium conditioning for reducing fly ash resistivity.

PB-236 924/7GA PC$7.25/MF$2.25
Rutgers - The State Univ., New Brunswick, N. J. Bureau of Government Research.
WATER POLLUTION CONTROL IN NEW JERSEY.
Research rept.,
Philip H. Burch, Jr. Mar 73, 210p W75-00429,
OWRT-A-016-NJ(2)

Descriptors: *Water pollution, *New Jersey, *Water quality management, Objectives, Policies, Delaware River, Federal budgets, State government, Local government, Environmental impacts, Documents, Economic impact, Intergovernmental relationships.
Identifiers: Water quality standards, *Water quality act.

The focus of the analysis is on both the statutory framework for water pollution control and on the administrative actions taken to both establish water quality goals and to secure local governmental and industrial compliance with the prescribed objectives. Attention is given to the water pollution control policies adopted by the Interstate Sanitation Commission and the Delaware River Basin Commission. The role of the federal government is also described in detail. The study is from a governmental standpoint rather than a technical or scientific one. Related economic and environmental questions are treated to the extent they bear on governmental aspects. The major theme is on how New Jersey has moved to improve its position in water pollution control.

PB-236 932/0GA PC$8.50/MF$2.25
TRW Systems Group, Redondo Beach, Calif. Transportation and Environmental Operations.
DEVELOPMENT OF A SAMPLE AIR QUALITY MAINTENANCE PLAN FOR SAN DIEGO.
Final rept.,
Andrew T. Creekmore, Jr. Sep 74, 258p EPA-450/3-74-051
Contract EPA-68-02-1385

Descriptors: *Air pollution, *Urban planning, Sources, Land use, Maintenance management, Management guidelines, Problem solving, Organizations, Systems engineering, Statistical methods, Combustion products, Exhaust emissions, Gasoline, Industrial wastes, Standards, Regional planning.
Identifiers: *Air quality maintenance, *San Diego(California), Air pollution standards, Air pollution abatement, Delphi technique.

the report documents the development of a sample plan for maintaining the national ambiet air quality standards in San Diego. In the preparation of this sample plan, air quality and emission inventory data were analyzed, and an attainment strategy as well as a maintenance strategy was proposed. In addition to the examination of various alternative source emission controls, various land use controls were analyzed through the use of the Delphi technique. Finally, alternative organizational structures for administering the development and implementation of an air quality maintenance plan in San Diego were examined.

PB-236 951/0GA PC$8.50/MF$2.25
Geological Survey, Miami, Fla.
WATER AND THE SOUTH FLORIDA ENVIRONMENT.
Howard Klein, Jeffrey Armbruster, Benjamin F. McPherson, and Herbert J. Freiberger. 1974, 272p
DI-SFEP-74-45

Descriptors: *Water quality management, *Water supply, *Florida, *Ecology, Water resources, Land use, Ground water, Vegetation, Water pollution, Population growth, Aquifers, Rainfall, Surface water runoff, Environmental impacts, Drainage, Salt water intrusion.
Identifiers: Ecosystems.

Increasing population and the concomitant urban sprawl and industrial growth in South Florida has caused concern to agencies involved in land use planning and water management as to the adequacy of water supplies, determination of water quality and changes in environmental factors. This report describes the physical system, past and present, the environmental problems that exist now, and provides alternative solutions to these problems with emphasis on alternatives that might be used to minimize deleterious effects on the environment of south Florida in years to come.

PB-236 983/3GA PC$4.25/MF$2.25
New York State Assembly Scientific Staff, Albany.
PHOSPHORUS IN NEW YORK STATE RIVERS: SOURCES, SINKS, AND DETERGENTS.
Final rept. Oct 72-Aug 73,
Jonathan T. Haney. Aug 73, 61p SS-306
NSF/RA/G-73/032
Grant NSFISR72-05606-A02
Continuation of Grant NSF-GT-32162. Prepared by State Univ. of New York Binghamton. Dept. of Chemistry.

Descriptors: *Stream pollution, *Inorganic phosphates, *New York, *Limnology, Water flow, Lakes, Soils, Sediments, Aquatic plants, Susquehanna River, Watersheds, Detergents, Sewage, Agricultural wastes, Surface water runoff, Bed load, Water chemistry.
Identifiers: Eutrophication, Ecosystems, Low flow.

The report considers the role of phosphorus in aquatic ecosystems, with particular reference to rivers. It contains a considerable amount of chemical data. The phosphorus concentrations of New York rivers under conditions of moderately low flow (0.20 part per million phosphorus) were about four times the median value for New York lakes (0.05 ppm P) in the water years 1965-67, showing that phosphates become bound to soil particles in rivers, and thus become part of lake sediments. Another point is that phosphates from detergents represent only a minor fraction of phosphate input to water-ways, the major portion coming from aquatic plants, human wastes, and agricultural run-off. Mass balances were constructed for seven New York State watersheds.

PB-237 040/1GA PC$8.50/MF$2.25
Clean Air Research Co., Pico Rivera, Calif.
AN EVALUATION OF THE EFFECTIVENESS OF AUTOMOBILE ENGINE ADJUSTMENTS TO REDUCE EXHAUST EMISSIONS AND AN EVALUATION OF THE TRAINING REQUIRED TO DEVELOP PERSONNEL COMPETENT TO MAKE THE ADJUSTMENTS.
Final rept. 12 Jan 72-30 Sep 73,
J. L. Cockel. 22 Jun 73, 273p ARB-R-654-73-18

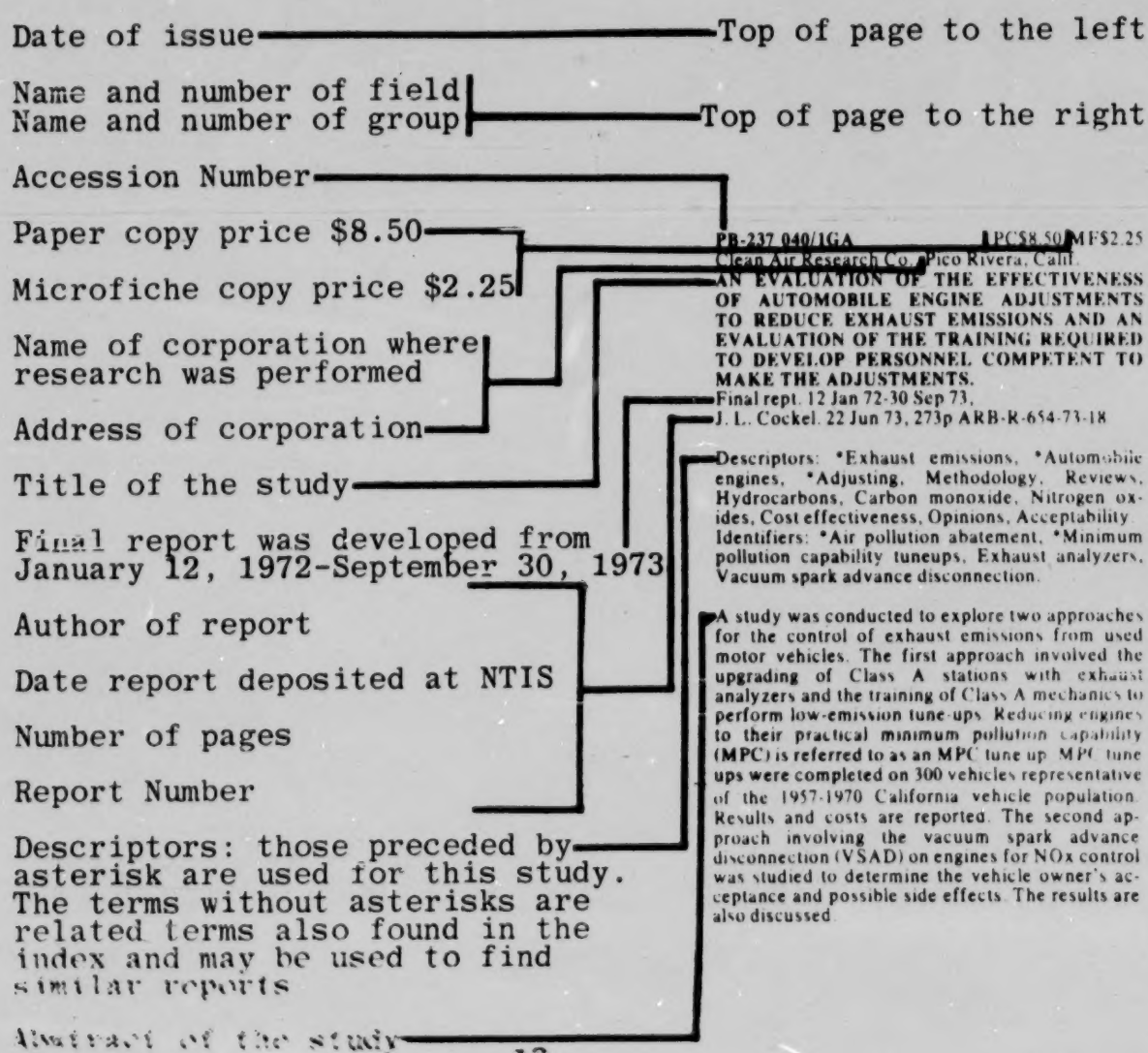
Descriptors: *Exhaust emissions, *Automobile engines, *Adjusting, Methodology, Reviews, Hydrocarbons, Carbon monoxide, Nitrogen oxides, Cost effectiveness, Opinions, Acceptability.
Identifiers: *Air pollution abatement, *Minimum pollution capability tuneups, Exhaust analyzers, Vacuum spark advance disconnection.

A study was conducted to explore two approaches for the control of exhaust emissions from used motor vehicles. The first approach involved the upgrading of Class A stations with exhaust analyzers and the training of Class A mechanics to perform low-emission tune ups. Reducing engines to their practical minimum pollution capability (MPC) is referred to as an MPC tune up. MPC tune ups were completed on 300 vehicles representative

Fig. 7

Now locate Group B, which is Civil Engineering. Within this first find alphabetically PB, then numerically 237 040/1GA. This is an example of an alphanumeric arrangement. Have you observed that the accession number is coded to indicate the source? PB-237 040/1GA from GRA while PB-237 040/1GI from GRI.

Every issue of GRA is arranged in identical fashion which makes for ease in use. Once you know the meanings of the items you will have no other problems.


Date of issue
Top of page to the left
Name and number of field
Name and number of group
Top of page to the right
Accession Number
Paper copy price $8.50
Microfiche copy price $2.25
Name of corporation where research was performed
Address of corporation
Title of the study
Final report was developed from January 12, 1972-September 30, 1973
Author of report
Date report deposited at NTIS
Number of pages
Report Number
Descriptors: those preceded by asterisk are used for this study. The terms without asterisks are related terms also found in the index and may be used to find similar reports
Abstract of the study
PB-237 040/1GA PCS8.50 MFS2.25
Clean Air Research Co., Pico Rivera, Calif.
AN EVALUATION OF THE EFFECTIVENESS OF AUTOMOBILE ENGINE ADJUSTMENTS TO REDUCE EXHAUST EMISSIONS AND AN EVALUATION OF THE TRAINING REQUIRED TO DEVELOP PERSONNEL COMPETENT TO MAKE THE ADJUSTMENTS.
Final rept. 12 Jan 72-30 Sep 73,
J. L. Cockel. 22 Jun 73, 273p ARB-R-654-73-18
Descriptors: *Exhaust emissions, *Automobile engines, *Adjusting, Methodology, Reviews, Hydrocarbons, Carbon monoxide, Nitrogen oxides, Cost effectiveness, Opinions, Acceptability
Identifiers: *Air pollution abatement, *Minimum pollution capability tuneups, Exhaust analyzers, Vacuum spark advance disconnection.
A study was conducted to explore two approaches for the control of exhaust emissions from used motor vehicles. The first approach involved the upgrading of Class A stations with exhaust analyzers and the training of Class A mechanics to perform low-emission tune-ups. Reducing engines to their practical minimum pollution capability (MPC) is referred to as an MPC tune up. MPC tune ups were completed on 300 vehicles representative of the 1957-1970 California vehicle population. Results and costs are reported. The second approach involving the vacuum spark advance disconnection (VSAD) on engines for NOx control was studied to determine the vehicle owner's acceptance and possible side effects. The results are also discussed.

Sometimes there are entries in GRA without an abstract but including a notation of this type: For abstract, see STAR 1223 (Fig. 9). This means the abstract is item number 1223 in Scientific and Technical Aerospace Reports (NASA), another indexing service.

N74-33999/5GA PC$3.25/MF$2.25
National Aeronautics and Space Administration, Washington, D.C.
MATERIALS: A COMPILATION.
Technology Utilization.
1974, 20p NASA-SP-5974(02)

Descriptors: *Coatings, *Metallurgy, *Multilayer insulation, *Polymer chemistry, Alloys, Elastomers, Fluorocarbons, Lubricants, Mechanical properties, Molding materials, Stress corrosion, Technology utilization, Thermal insulation.

For abstract, see STAR 1223

Fig. 9

AD-A-001 044/4GI 5C

WMSI Working Paper 221.
Entropy, Economics, Physics.
AD/A-001 069/4GI 9D

CALIFORNIA UNIV SAN DIEGO LA JOLLA
Asymptotics and Representations of Cubic Splines.
AD/A-001 013/2GI 12A

CALIFORNIA UNIV SAN DIEGO LA JOLLA DEPT OF CHEMISTRY
TR-16
Fixed Passage Time and Extremum Properties of Markov and Independent Processes.
AD/A-001 571/9GI 12A

CALIFORNIA UNIV SAN DIEGO LA JOLLA INST FOR PURE AND APPLIED PHYSICAL SCIENCES
Raman Low Temperature Lattice Transformations of LaRu2.
(APOSR-TR-74-1555)
AD/A-001 523/5GI 20B

CALIFORNIA UNIV., SAN DIEGO, LA JOLLA. INST. OF MARINE RESOURCES.
IMR-74-11
University of California Sea Grant College Program Directory 1974-1975.
(NOAA-74102210)
COM-74-11778/9GI 5B

Sea Grant Pub-36
University of California Sea Grant College Program Directory 1974-1975.
(NOAA-74102210)
COM-74-11778/9GI 5B

CALIFORNIA UNIV., SAN FRANCISCO. SCHOOL OF MEDICINE.
Immunology of Hepatitis B
(NIH/NHLI 72-2958)
PB-236 843/9GI 6E

CALSPAN CORP BUFFALO N Y
CALSPAN-AD-5013-F-2
Report on Program to Improve MIL-F-83300.
(AFFDL-TR-74-54)
AD/A-001 599/3GI 1C

CALSPAN-WB-5117-A-3
Uranium-Oxygen Radiation Studies.
(DNA-3396F)
AD/A-001 191/7GI 7D

CALSPAN-ZQ-5351-V-3
Development and Evaluation of Automobile Crash Sensors-Executive Summary.
(DOT-HS-801-262)
PB-237 596/7GI 13F

CANADA WIRE AND CABLE TECHNOLOGY DEVELOPMENT DIV POINTE CLAIRE (QUEBEC)
TR-11
Coastal Dynamics on Cedar Island, Virginia.
AD/A-001 068/6GI 13B

CARNEGIE-MELLON UNIV PITTSBURGH PA DEPT OF COMPUTER SCIENCE
The Complexity of Parallel Evaluation of Linear Recurrences.
AD/A-001 376/3GI 9B

Bus Communications Systems
(NSF/OCA-GJ32756X-RT174)
PB-235 897/6GI 9B

CARNEGIE-MELLON UNIV PITTSBURGH PA DEPT OF MECHANICAL ENGINEERING
SM-74-2
Exploratory Development on Fracture Mechanics of Composite Materials.
(AFML-TR-74-111)
AD/A-001 609/7GI 11D

CENTRE NATIONAL D'ETUDES DES TELECOMMUNICATIONS, LANNION (FRANCE).
ESRO-CR(P)-632
Evaluation Programme for the Space Application of Gunn Effect and Avalanche Diodes, Phase 1.
N74-33743/7GI 9A

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, MARSEILLES (FRANCE). LAB. D'ASTRONOMIE SPATIALE.
ELEC/JAN-045-73
Janus Rocket Nose Simulation Study Etude de la Simulation de la Tete de Fusee Janus.
N74-34350/6GI 22B

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, TOULOUSE (FRANCE). LAB. D'AUTOMATIQUE ET D'ANALYSE DES SYSTEMES.
LAAS-PUBL-1107
Characterization of Technological Processes for Manufacture of High Voltage Integrated Circuits Caracterisation des Differentes Operations d'Un Processus Technologique en Vue de l'Obtention de Circuits Integres Haute Tension.
N74-33753/6GI 9E

CHARLOTTE, N.C. USAC PROJECT.
MIS-6301/000/01
The Task 6 Completion Report.
PB-236 885/9GI 13B

USAC-CNCO-0157
The Task 6 Completion Report.
PB-236 885/8GI 13B

CHEMICO PROCESS PLANTS CO., EL MONTE, CALIF. ENVIROGENICS SYSTEMS.
Study of Crosslinked Polymers for Desalination.
(Int-OSW-RDPR-74-996)
PB-236 934/6GI 7A

CHRYSLER CORP., NEW ORLEANS, LA.
DMS-DR-2163
Aerodynamic Results of a Support System Interference Effects Test Conducted at NASA/Larc Upwt Using an 0.015-Scale Model of the Configuration 140A/B Sev Orbiter (0A20B).
N74-34313/3GI 22B

DMS-DR-2185
Investigations on an 0.030-Scale Space Shuttle Vehicle Configuration 140A/B Orbiter Model in the Ames Research Center Unitary Plan 8 by 7-Foot Supersonic Wind Tunnel (0A53C).
N74-34334/4GI 22B

NASA-CR-134120
Investigations on an 0.030-Scale Space Shuttle Vehicle Configuration 140A/B Orbiter Model in the Ames Research Center Unitary Plan 8 by 7-Foot Supersonic Wind Tunnel (0A53C).
N74-34334/4GI 22B

NASA-CR-134403
Aerodynamic Results of a Support System Interference Effects Test Conducted at NASA/Larc Upwt Using an 0.015-Scale Model of the Configuration 140A/B Sev Orbiter (0A20B).
N74-34315/3GI 22B

CHRYSLER CORP., NEW ORLEANS, LA. SPACE DIV.
DMS-DR-2037
Results of Investigations on an 0.015 Scale 140A/B Configuration Space Shuttle Vehicle Orbiter Model (49-0) in the LTV 4 by 4-Foot High Speed Wind Tunnel (0A84).
N74-34314/6GI 22B

DMS-DR-2087
Effect of Engine Shroud Configuration on the Static Aerodynamic Characteristics of a 0.00563 Scale 142-Inch Diameter Solid Rocket Booster (Sa10f).
N74-34337/7GI 21H

DMS-DR-2125
Results of Investigations on an 0.004-Scale 140A/B Configuration Space Shuttle Vehicle Orbiter Model (34-0) in the NASA/Langley Research Center Hypersonic Helium Tunnel (0A88).
N74-34321/1GI 22B

DMS-DR-2137-VOL-1-REV-A
Results of Tests in the NASA/Larc 31-Inch Cfbt on an 0.010-Scale Model (32-Ot) of the Space Shuttle Configuration 3 to Determine the Rcs Jet Plumefield Interaction Effects on Aerodynamic Characteristics (IA60/0A105), Volume 1
N74-34319/5GI 22B

DMS-DR-2140
Investigation of Space Shuttle Orbiter Subsonic Stability and Control Characteristics and Determination of Control Surface Hinge Moments in the Rockwell International Low Speed Wind Tunnel (OA37).
N74-34336/9GI 22B

DMS-DR-2155
Stability and Control Characteristics for the Inner Mold Line Configuration of the Space Shuttle Orbiter (OA110).
N74-34328/3GI 22B

NASA-CR-134103
Results of Tests in the NASA/Larc 31-Inch Cfbt on an 0.010-Scale Model (32-Ot) of the Space Shuttle Configuration 3 to Determine the Rcs Jet Plumefield Interaction Effects on Aerodynamic Characteristics (IA60/0A105), Volume 1
N74-34319/5GI 22B

NASA-CR-134116
Effect of Engine Shroud Configuration on the Static Aerodynamic Characteristics of a 0.00563 Scale 142-Inch Diameter Solid Rocket Booster (Sa10f).
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Fig. 10

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Fig. 11

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AD/A-000 935/7GI 9B

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Deutsche Versuchsanstalt Fuer Luft Und Raumfahrt E V Bad Godesberg (West Germany) Institut Fuer Flugmedizin
AD/A-001 346/1GI 20D

Monsanto Research Corp St Louis Mo
AD/A-001 345/8GI 20D

AD/A-001 346/6GI 20D

ARPA ORDER-1236
Mcdonnell Douglas Research Labs St Louis Mo
AD/A-000 851/3GI 20E

ARPA ORDER-1279
Owens-Illinois Inc Pittsburgh Pa Fecker Systems Div
AD/A-001 638/6GI 17H

ARPA ORDER-1348
Scripps Institution of Oceanography La Jolla Calif Advanced Ocean Engineering Lab
AD/A-001 018/5GI 13J

ARPA ORDER-1364
Cornell Univ Ithaca N Y Center for Radiophysics and Space Research
AD/A-000 929/0GI 3B

ARPA ORDER-1620
Teledyne Geotech Alexandria Va Seismic Data Analysis Center
AD/A-001 061/1GI 17J

ARPA ORDER-1656
Stanford Research Inst Menlo Park Calif
AD/A-001 570/1GI 4A

ARPA ORDER-1716
Texas Instruments Inc Dallas Equipment Group
AD/A-000 911/4GI 17J

ARPA ORDER-1783
Louisiana State Univ Baton Rouge Center for Wetland Resources
AD/A-001 587/5GI 8C

ARPA ORDER-1809
Hughes Research Labs Malibu Calif
AD/A-001 114/8GI 20E

ARPA ORDER-1864
Riverside Research Inst New York
AD/A-001 087/6GI 17I

ARPA ORDER-2367
ABEX Corp Mahwah N J Research Center
AD/A-000 917/6GI 13H

General Electric Corporate Research and Development Schenectady N Y
AD/A-001 542/6GI 13H

ARPA ORDER-2369
Raytheon Co Sudbury Mass
AD/A-001 088/4GI 9E

ARPA ORDER-2551
Texas Instruments Inc Dallas Equipment Group
AD/A-001 [illegible]/1GI 17J

AD/A-001 [illegible]/1GI 17J

ARPA ORDER-2613
Computer Corp of America Cambridge Mass
AD/A-001 560/2GI 8K

ARPA ORDER-2644
Bolt Beranek and Newman Inc Cambridge Mass
AD/A-001 574/3GI 20F

Ohio State Univ Columbus Electroscience Lab
AD/A-001 639/4GI 20F

ARPA ORDER-2655
Westinghouse Research Labs Pittsburgh Pa
AD/A-001 [illegible]/1GI 17A

ARPA ORDER-2698
General Electric Corporate Research and Development Schenectady N Y
AD/A-001 012/4GI 11B

ARPA ORDER-2731
Raytheon Co Wayland Mass Advanced Development Lab
AD/A-001 064/5GI 20N

AT(11-1)-1360
Colorado State Univ Fort Collins Dept of Atmospheric Science
N74-33882/3GI 4A

AT(49-7)-1864
Naval Research Lab Washington D C
AD/A-000 953/0GI 18D

DA-ARO-D-31-124-71-G38
Yale Univ New Haven Conn Dept of Geology and Geophysics
AD/A-001 369/8GI 4B

DA-ARO-D-31-124-71-G75
Wisconsin Univ Madison
AD/A-001 660/6GI 7D

DA-ARO-D-31-124-71-G77
Illinois Univ Urbana Electromagnetics Lab
AD/A-001 116/1GI 20N

DA-ARO-D-31-124-71-G83
California State Univ San Diego
AD/A-001 231/6GI 7C

DA-ARO-D-31-124-71-G168
Lehigh Univ Bethlehem Pa
AD/A-001 232/8GI 20D

DA-ARO-D-31-124-72-G31
Southern Methodist Univ Dallas Tex Thermal and Fluid Sciences Center
AD/A-001 115/5GI 20N

DA-ARO-D-31-124-72-G39
Oregon Univ Eugene Dept of Physics
AD/A-001 237/7GI 7D

DA-ARO-D-31-124-72-G54
Northwestern Univ Evanston Ill Dept of Geological Sciences
AD/A-001 234/4GI 8B

DA-ARO-D-31-124-72-G147
Auburn Univ Ala
AD/A-000 996/4GI 9E

DA-ARO-D-31-124-72-G39
New York Univ N Y Dept of Physics
AD/A-000 995/1GI 7D

DA-ARO-D-31-124-73-G48
Wisconsin Univ Madison
AD/A-001 600/6GI 7D

DA-ARO-D-31-124-73-G53
Oklahoma State Univ Stillwater Dept of Physics
AD/A-001 121/1GI 20L

DA-ARO-D-31-124-73-G64
California Inst of Tech Pasadena
AD/A-001 357/3GI 9E

DA-ARO-D-31-124-73-G70
Northwestern Univ Evanston Ill Dept of Civil Engineering
AD/A-001 368/0GI 20K

DA-ARO-D-31-124-73-G111
Duke Univ Durham N C Dept of Physics
AD/A-000 990/9GI 20L

DA-ARO-D-31-124-73-G135
East Carolina Univ Greenville N C Dept of Physics
AD/A-001 132/8GI 20E

DA-ARO-D-31-124-73-G193
Denver Univ Colo
AD/A-001 047/0GI 14B

DA-ERO-591-73-G-0057
Fraunhofer-Gesellschaft Garmisch-Partenkirchen (West Germany)
AD/A-001 606/1GI 4B

DA-I-M-362303-A-314
Army Missile Research Development and Engineering Lab Redstone Arsenal Ala Ground Equipment/Materiels Directorate
AD/A-001 459/7GI 1C

DA-22-079-ENG-414
California Univ Berkeley Dept of Civil Engineering
AD/A-001 524/8GI 8M

DA-28-043-AMC-02536(E)
Massachusetts Inst of Tech Cambridge
AD/A-001 356/5GI 14B

DA-31-124-ARO(D)-329
Pennsylvania Univ Philadelphia Dept of Physics
AD/A-000 912/6GI 20L

DA-31-124-ARO(D)-369
Rensselaer Polytechnic Inst Troy N Y Dept of Mathematical Sciences
AD/A-000 888/5GI 13I

Rensselaer Polytechnic Inst Troy N Y Dept of Mathematics
AD/A-000 878/9GI 20D

DA-31-124-ARO(D)-462
Wisconsin Univ Madison Mathematics Research Center
AD/A-001 650/1GI 12A

AD/A-001 651/9GI 20C

AD/A-001 652/7GI 11H

AD/A-001 653/5GI 12A

AD/A-001 654/3GI 12A

AD/A-001 655/0GI 12A

AD/A-001 656/8GI 20D

AD/A-001 657/6GI 12A

AD/A-001 658/4GI 12B

AD/A-001 659/2GI 12A

AD/A-001 660/0GI 12A

AD/A-001 661/8GI 7A

AD/A-001 662/6GI 12A

AD/A-001 663/4GI 12A

AD/A-001 664/2GI 12A

DA-31-124-ARO-D-477
Purdue Univ Lafayette Ind
AD/A-001 169/2GI 9B

DAAA15-76-C-0193
Stanford Research Inst Menlo Park Calif
AD/A-000 886/2GI 7D

DAAA21-73-C-0736
Lingenfelter Applied Technology Inc Gaithersburg Md
AD/A-000 887/0GI 13G

DAAA21-76-C-0013
Ici United States Inc Valley Forge Pa Atlas Aerospace Div
AD/A-000 916/7GI 19A

DAAB05-73-C-5830
RCA Electronic Components Harrison N J Microwave Devices Operations Dept
AD/A-001 562/8GI 9E

DAAB05-73-C-5868
Motorola Inc Phoenix Ariz
AD/A-000 815/9GI 9A

DAAB05-73-C-2032
Silicon Transistor Corp Chelmsford Mass
AD/A-000 816/7GI 9A

DAAB05-73-C-3063
Texas Instruments Inc Dallas Semiconductor Group
AD/A-001 605/5GI 9E

DAAB05-73-C-3078
Iic Technology Inc Sunnyvale Calif
AD/A-000 901/5GI 20E

DAAB07-69-C-0063
Rensselaer Polytechnic Inst Troy N Y
AD/A-001 610/5GI 7D

DAAB07-69-C-0364
Kentucky Research Foundation Lexington
AD/A-000 847/4GI 7D

DAAB07-69-C-0383
Columbia Radiation Lab New York
AD/A-001 370/6GI 18H

Fig. 13

CONTRACT NUMBER INDEX

Do you know either the contract or grant number? The entries in the Contract Number Index are arranged by contract or grant number, then corporate author, then accession number. In our example of PB-237 040/1GI, however, no contract number is known (Fig. 13).

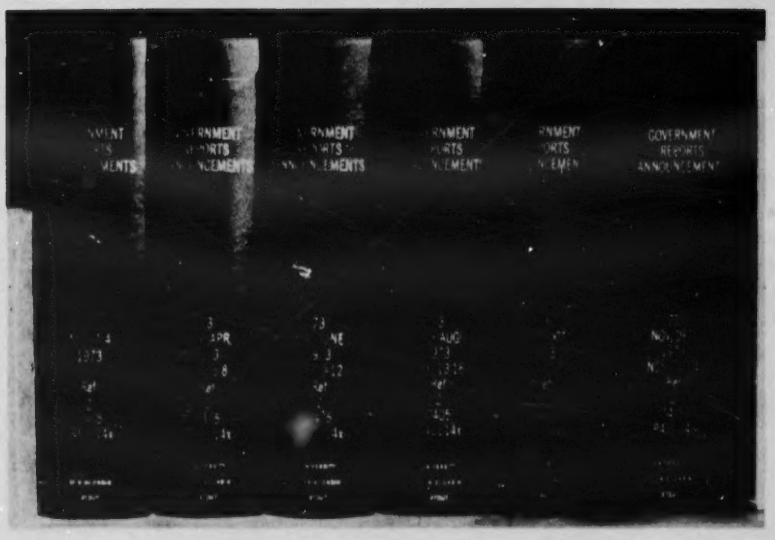

Fig. 14

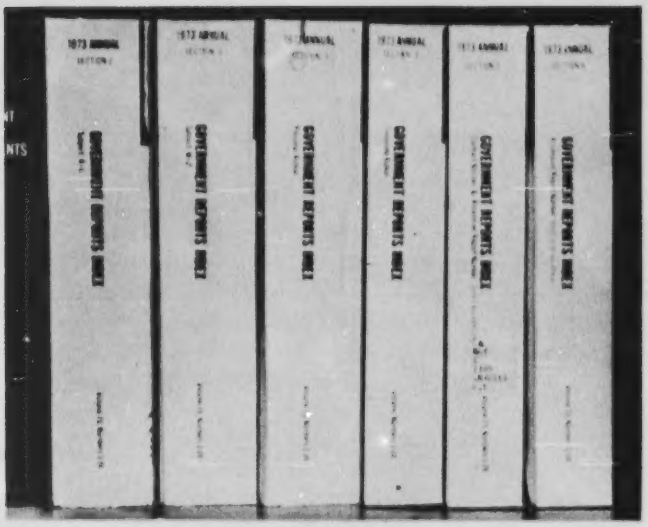

Fig. 15

MICROWAVE OVENS

Safety Load and Temperature Control System for Microwave Ovens.
AD-163 592/9 73-19 13A Not available NTIS

Fig. 16

VOLUMES - GRA

As you have observed, the GRA-which announces the available reports, and the GRI-which permits access to this information, are not difficult to use. They are published twice monthly, which makes 24 issues of GRA and an equal number of GRI each year. Generally libraries bind the single copies of GRA into volumes for easy use. Fig. 14 shows the 1973 GRA as it appears on the Periodical Index Table in the Pierce Library, University of Wisconsin-Stout. The 24 issues are bound into 6 volumes with the months and numbers of the issues lettered on the spine.

VOLUMES - GRI

The magnitude of searching a five year file of GRI is immediately apparent. This hurdle is eliminated because 24 separate indexes are cumulated into one alphabet annually. For 1973, the Subject Index is in two parts, Section 1, A - L; Section 2, M - Z; Personal Author Index, Section 3; Corporate Author Index, Section 4; Contract Number and Accession/Report Number Index, Section 5; and Accession/ Report Number Index, Section 6. These are shown in Fig. 15.

The cumulated annual indexes have the same format as the twice-monthly indexes with a single addition which indicates the location of the report. Check in Fig. 16, where you will find the subject, Microwave Ovens; the title; the accession number; then the notation 73 - 19. This means the year 1973 and the issue number 19. This information is followed by the field and the group.

REPORT LOCATOR LIST

This list comprises all the reports cited in this issue. It is arranged alpha-numerically by accession number. The subject field and group where the report citation can be located in the journal precedes the accession number.

All of the reports announced in this issue are indexed by corporate author, subject, personal author, contract number, and accession/report number in the companion index **Volume 75, Number 82.**

05C AD/A-000 791/4GA
09B AD/A-000 792/2GA
09A AD/A-000 793/0GA
09A AD/A-000 794/8GA
09D AD/A-000 795/5GA
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17B PB-237 051/8GA
17B PB-237 052/6GA

Fig. 17

REPORT LOCATOR LIST

Toward the back of each issue of GRA, there is a section called the Report Locator List(Fig. 17). This list comprises all of the reports cited in each issue. It is arranged alphanumerically by accession number. The field number and group letter showing the location of the report precedes the accession number. The inset shows the accession number PB 237 040/1GA, Field 13, Group B, representing the report we have traced through the various indexes.

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Fig. 18

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HOW TO ACQUIRE THESE REPORTS

The major portion of these reports are available either in paper copy or microfiche copy. Perhaps your local library can supply the reports you need. The prices for each document are listed in GRA following the accession number, and also in the Accession/Report Number Index. They can be ordered from NTIS. Fig. 18 is a copy of the NTIS order form. You need not use this form to order the reports but be certain to include all of the information.

ESDU/A-1 Write for prices
Engineering Sciences Data Unit Ltd., London (England).
AERONAUTICAL SERIES. AERODYNAMICS. SUB-SERIES. VOLUME 1. GENERAL AERODYNAMICS SUB-SERIES.
Collection of data items.
1974, 32 data items in 2 binders*
For information on availability of series, sub-series, or individual data items, write NTIS, Attn: ESDU, Springfield, Va. 22161.

Descriptors: *Aerodynamics, *Fluid mechanics, *Design criteria, Aerodynamic characteristics, Aerothermodynamics, Subsonic flow, Supersonic flow, Atmospheric physics, Wind velocity, Reynolds number, Graphic methods, User needs, Great Britain.
Identifiers: ESDU/A, *Atmospheric properties, Design engineering, *Engineering design data.

This report, a subseries of the Aeronautical Engineering series, analyzes in 32 engineering data item packages the subject of aerodynamics as it relates to design criteria.

Fig. 19

PATENT-3 663 783
Not available NTIS
Office of the Secretary of the Army Washington D C
SAFETY LOAD AND TEMPERATURE CONTROL SYSTEM FOR MICROWAVE OVENS.
Patent,
Elbert L. McKague, Jr., and Walter C. Cooper, Jr.
Filed 7 Dec 70, patented 16 May 72, 6p PAT-APPL.-95-783
Availability: Government-owned invention available for licensing. Copy of patent available Commissioner of Patents, Washington, D.C. 20231 $0.50.

Descriptors: (*Furnaces, Microwave equipment), (*Patents, Furnaces), Temperature control, Control systems, Safety, Aging (Materials).

Identifiers: PAT-CL-219-10-55, *Microwave ovens.

The patent describes a safety load and temperature control system for microwave ovens wherein a variable volume of water is passed through the oven for controlling the amount of energy received by a work piece therein. Microwave energy from magnetron tubes is introduced into the oven chamber for processing a work piece. The variable supply of water within the chamber is increased for small parts being cured and decreased for large parts being cured. The water is passed through a dielectrically transparent vessel within the chamber and is heated by the microwave energy proportional to the heated work piece or part. The temperature of the water leaving the chamber is indicative of the rate of change of the work piece temperature.

Fig. 21

COM-74-51033/0GA Not available NTIS
National Bureau of Standards, Washington, D.C.
A REVIEW OF METHODS AND REQUIREMENTS FOR FIRE PROTECTION OF STEEL-FRAMED BUILDINGS.
Final rept.,
Irwin A. Benjamin. 1968, 5p
Pub. in Proceedings of Structural Engineering Association of California 3 Oct 68, p24-28.

Descriptors: *Buildings, *Fire protection, Building codes, Steel construction, Fire tests, Fire resistant materials.

This document reports development of methods and techniques of producing artificial crystals with large d spacings suitable for use in the multichannel curved-crystal spectrograph of the Lockheed Palo Alto Research Laboratory. Artificial crystals have been successfully fabricated and tested in a curved-crystal configuration. An investigation of the feasibility of superconducting detectors capable of recording high-resolution spectral information at low x-ray energies is also reported.

Fig. 20

DOCUMENTS NOT AVAILABLE FROM NTIS

Accession numbers designated ESDU are given to reports available from the Engineering Sciences Data Unit (ESDU), Royal Aeronautical Society, London, England (Fig. 19). Directions for obtaining these reports are included in the citation.

Consult Fig. 20. COM-74-51033/0GA Not Available NTIS This report cannot be purchased from NTIS. The line following the author's name states that this reports was published in the PROCEEDINGS OF THE STRUCTURAL ENGINEERING ASSOCIATION OF CALIFORNIA, October 3rd, 1968 on pages 24-28.

Refer back to Fig. 16 on page 24. This citation, from the 1973 GRI subject index, is as follows:

Microwave ovens
Safety Load and Temperature System for Microwave Ovens.
AD-163 592/9 73-19 13A Not Available NTIS

In GRA issue number 19, 1973, Field 13, Group A, we find a reference to this report (Fig. 21). This is a Government-owned invention available for licensing. A copy of the patent is available from the Commissioner of Patents, Washington, DC 20231, for $0.50.

Objectives

NTIS HANDBOOK

The learner will be able to:

1. *Select appropriate descriptors for accessing Government Reports Index by subject for information relating to any VTAE substantive area.*

2. *Access Government Reports Index by:*
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   Personal Author
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   Contract Number

3. *Locate the abstract in Government Reports Announcements from the alphanumeric citation found in Government Reports Index.*

4. *Order pertinent documents in microfiche or paper copy from NTIS.*

GRI/GRA SELF-TEST

You have just completed a short introduction to Government Reports Index and Government Reports Announcements. You may wish to test your skill at accessing information from this collection of research reports.

If you have access to GRI and GRA select some subject of interest to you to learn what research has been reported. Follow the same form of procedure suggested in the exercise that follows.

If you do not have access to this series, use these sample pages taken from GRI and GRA for February 7, 1975 to answer these questions.

What reports on child abuse are listed in this issue?

Fill in the blanks to outline the action you will take to locate reports on this question.

1. Select the key words under which you may find research on this subject. In this instance they may be _____, _____ and _____.

2. Turn to the Contents page in the photocopied section from the _____ _____ _____ for February 7, 1975 to locate the subject index.

3. The subject index begins,on page _____ ___. Turn to page Su-13 in this sample.

4. The subject index to GRI is arranged _____ by key words.

5. The title of the research report under Child Abuse is __ _____ _____ __ _____ _____ _____ _____ __ _____ _____ ___ _____.

6. The accession number of the report is __ __ ___ _____.

7. The report is found in _____ _____ _____ Field 6, Group E.

8. Turn to GRA for February 7, 1975. Find Field 6, Group E. Reports are arranged alphanumerically within the group. First the letters PB then the numbers 236 751. The author of this report is _____ _____ __ _____ _____.

9. P C $5.25/MF $2.25 indicate costs of _____ _____ and _____ _____.

10. The _____ page report was completed _____ _____.

11. The report number is _____.

12. The next sections lists the descriptors and identifiers. An _____ indicates those under which this report is indexed. They are: _____ _____, _____, _____ _____, and _____ _____. Consult sample pages in the GRI for February 7, 1975 to locate these entries. Child Abuse and Children on page _____, Medical Services on page _____, and Neglected Children on page _____.

13. The abstract of the report follows the list of Descriptors and Identifiers. An abstract contains a brief _____ of the report.

14. Turn again to the Contents page of the GRI for February 7, 1975. There are five separate indexes. They are:

	Pages
_____ _____ _____	CA - 1
_____ _____	SU - 1
_____ _____ _____	PA - 1
_____ _____ _____	CN - 1
_____/ _____ _____ _____	AR - 1

15. These are all access points which may help you to secure information from this index depending on your previous knowledge of the report. We have practiced using the Subject Index. From question 8, we have identified the author of a report, _____ _____ __ _____, a corporate author. Using the Corporate Author Index find this report on page ____ __.

16. There is a Personal Author Index on ___ ___. In this instance there is no personal author.

17. The Contract number index on page ___ ___ is arranged in sequential order. This report has no contract number.

18. Question 6 identifies the accession number as _____ and question 11 lists the report number as _____.

19. The Accession/Report Number Index begins on page _____.

20. Find accession number PB 236 751 on page _____ and Report Number BHSR-75-21 on page _____.

You may verify your answers by checking the answers on the following page. Should you wish to read this report, you will need to check with your library to learn whether a copy is available. If not owned locally, your librarian may be able to secure it for you either by purchase or Interlibrary Loan.

ANSWERS TO GRI/GRA SELF-TEST

1. chi d, abuse, and children
2. Government Reports Index
3. SU-
4. alphabetically
5. A Descriptive Study of Nine Health-based Programs In Child Abuse and Neglect.
6. P B 236 751/4Gl.
7. Government Reports Announcements
8. American Academy of Pediatrics
9. paper copy and microfiche copy
10. 115, April 1974
11. BHSR-75-21
12. asterisk, child abuse, children, Medical Services, and neglected children, SU-13, SU-46, SU-50
13. summary
14. Corporate Author Index ,
15. American Academy of Pediatrics, CA 2
16. PA 1
17. CN 1
18. PB 236 751/4Gl, BHSR-75-21
19. AR-1
20. AR-49, AR-13

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Bibliographic citations and abstracts for documents included in this index are published in the corresponding issue of the Government Reports Announcements.

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ALLIED CHEMICAL CORP., IDAHO FALLS, IDAHO IDAHO CHEMICAL PROGRAMS - OPERATIONS OFFICE.

Idaho Chemical Programs Annual Technical Report, Fiscal Year 1973.
ICP-1047 — 18J

Removal of Cesium and Strontium from Fuel Storage Basin Water.
ICP-1048 — 18G

ALLIED-GULF NUCLEAR SERVICES, BARNWELL, S.C.

Barnwell Nuclear Fuel Plant License Application, Year, Amendment 7.
DOCKET-50332-47 — 18J

AMBIONICS, INC., WASHINGTON, D.C.

NASA-CR-132529
Remote Sensing of Coal Mine Pollution in the Upper Potomac River Basin.
N74-34857/8GI — 13B

AMERICAN ACADEMY OF PEDIATRICS, EVANSTON, ILL.

A Descriptive Study of Nine Health-Based Programs in Child Abuse and Neglect.
(PB-234 754/4GI)
PB-234 754/4GI — 6C

AMERICAN COMMITTEE FOR THE WEIZMANN INST OF SCIENCE NEW YORK

Tides in the Ocean.
AD/A 001 797/0GI — 8C

AMERICAN NUCLEAR SOCIETY, SAN DIEGO, CALIF. SAN DIEGO SECTION.

Proceedings of the First Topical Meeting on the Technology of Controlled Nuclear Fusion, San Diego, California, April 16-18, 1974. Volume I.
CONF-740402-P1 — 18A

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CONF-740402-P2 — 18A

AMERICAN SOCIETY OF INTERNAL MEDICINE, SAN FRANCISCO, CALIF.

Medical Care Appraisal and Quality Assurance in the Office Practice of Internal Medicine.
(DHHS(R-75-301)
PB-237 943/6GI — 6E

AMES LAB., IOWA.

Characterization and Analytical Application of an alpha -Hydroxy Oxime Resin for Chromatography.
IS-T-651 — 7D

Algorithm for Automatic Indexing and Bravais Lattice Selection. The Programs Blind and Alice.
IS-3469 — 9B

AMICON CORP., LEXINGTON, MASS.

NASA-CR-137544
Development of an Improved Membrane for a Vapor Diffusion Water Recovery Process.
N74-34486/3GI — 6K

APPLIED SCIENCE ASSOCIATES, INC., APEX, N.C.

NASA-CR-137471
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N74-36813/7GI — 8C

APPLIED SCIENCE ASSOCIATES INC VALENCIA PA

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ARCO CHEMICAL CO GLENOLDEN PA

Characterization of R-45M.
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ARGONNE NATIONAL LAB., ILL.

ANL/ES-CEN-1007
Reduction of Atmospheric Pollution by the Application of Fluidized-Bed Combustion and Regeneration of Sulfur-Containing Additives.
(EPA/650/2-74-104)
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SM 187/42
Analysis of Three Years of Complete-Field Temperature Data from Different Sites of Heated Surface Discharges into Lake Michigan.
CONF-740820-3 — 13B

Bibliography of Properties Data on Actinide Carbides and Nitrides.
ANL/CEN/AF-100 — 7D

Design Guide for Calculating Natural Frequencies of Straight and Curved BEAMS on Multiple Supports.
ANL-CT-74-08 — 18I

Bounds and Limit Theorems for Secondary Creep in Symmetric Pressure Vessels.
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ANL/NDM-8 — 20H

Method of Neutron Activation Cross Section Measurement for Flash of ≈ 5.5 to 10 Mev Using the D(D,N) exp 3 He Reaction as a Neutron Source.
ANL/NDM-9 — 20G

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ANL-6066(PART)) — 6H

Chemistry of Uranium in Homogeneous Solution.
ANL-6096 — 7E

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Distribution of Plutonium in a Rock Containment Environment.
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Application of a Method of Frequency Modulation Moessbauer Spectroscopy in exp 67 Zn to the Precise Determination of the Electric Quadrupole Interaction of exp 67 Zno.
CONF-740905-1 — 7D

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CONF-740920-10 — 20H

Chromosome Breakage in Lymphocytes from Humans with Body Burdens of exp 226 RA.
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Surface Mined Land in the Midwest: A Regional Perspective for Reclamation Planning.
(BuMines-OFR-39-74)
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ARIZONA UNIV., TUCSON.

NASA-CR-146575
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Minimizing Variabilities in Indexing: Appendix A. Indexing Policy.
(WTI-Orend.-OWRT-A-042-ARIZ(1))
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Action of Reserpine in Morphine Tolerant Rats: Absence of an Antagonism of Catecholamine Depletion.
AD/A 001 681/6GI — 6O

ARMY AEROMEDICAL RESEARCH LAB FORT RUCKER ALA.

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A Comparison of Methods of Preparing Porcine Skin for Bioassay of Thermal Injury.
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Porcine Burn Shock - Development of a Reliable Model and Response to Sodium, Water, and Plasma Loads Administered for Resuscitation.
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ARMY AVIATION SYSTEMS COMMAND ST LOUIS MO

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CH-47A Assessment and Comparative Fleet Evaluation. Executive Summary report.
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AD/A 002 663/6GI — 1C

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Studies of the Army Aviation V/STOL Environment: Report 6: Extreme 24 Hour Snowfalls in the United States Accumulation, Distribution and Frequency.
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ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MISS.

AEWES Misc. Paper Y-74-6
Physical, Biological, and Chemical Inventory and Analysis of Selected Dredged and Disposal Sites, Middle Mississippi River.
AD/A-001 726/9GI — 13B

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Spillway for Alcoville Lock and Dam, Tombigbee River, Alabama: Hydraulic Model Investigation.
AD/A-001 724/4GI — 13B

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The Use of Remote Sensing Systems for Acquiring Data for Environmental Management Purposes. Report 1: A Procedure for Predicting Image Contrasts in Photographic Remote Sensor Systems.
AD/A 002 070/1GI — 14F

ARMY ENVIRONMENTAL HYGIENE AGENCY ABERDEEN PROVING GROUND MD

USAEHA-44-022-73/75
Field Evaluation of the Larvicidal Effectiveness, Effects on Nontarget Species and Environmental Residues of a Slow-Release Polymer Formulation of Chlorpyrifos, March-October 1973.
AD/A-002 054/5GI — 6J

USAEHA-51-004-75
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Reprint: Precise Measurements of Cesium in the Ocean by Flame Emission Spectrometry.
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Sampling and Determination of Minimum Amounts of Lead in the Atmosphere--Translation.
PB-237 695-T/GI 7D

Radiochemical Analysis for Pb-210 and Po-210 in Environmental Samples.
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Analysis of Trace Amounts by X-Ray Emission Induced by Charged Particles.
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Analytical Chemistry Quarterly Report, April Through June 1970.
UCID-15644-70-2 7D

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UCID-15644-70-4 7D

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Fluid Inclusions in the Ores of Intragranitic Uranium Deposits of Limousin and Forez (Massif Central, France).
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Multidisciplinary Research in Space Sciences and Engineering with Emphasis on Theoretical Chemistry.
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MECHANICAL PROPERTIES
Mechanical Properties of High Explosives. Period Covered: April--June 1974.
MHSMP-74-19-D 19A

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Explosives Performance. Period Covered: April--June 1974.
MHSMP-74-19-E 19A

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MHSMP-74-19-C 19A

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Air Friction Sensitivity. Period Covered: April--June 1974.
MHSMP-74-19A 19A

CHEMICAL INDUSTRY
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PB-237 845/3GI 10A

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Radiation-Induced Polymerization of Ethylene with the Point Plant Pulse 2.
JAERI-M-5562 7E

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AD/A-001 964/6GI 7D

Reprint: Indirect Chemiluminescence by 1,2-Dioxetanes. Evaluation of Triplet/Singlet Excitation Efficiencies. A Long Range Singlet-Singlet Energy Transfer and an Efficient Triplet-Singlet Energy Transfer.
AD/A-002 032/1GI 7D

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PB-236 760/5GI
COPS - A Mechanism for Computer Protection.
PB-236 760/5GI 9B PC$3.75/MF$2.25

PB-236 761/3GI
Potential Capabilities in ALGOL-Like Programs.
PB-236 761/3GI 9B PC$3.25/MF$2.25

PB-236 766/7GI
A Study of Hospital Central Medical and Surgical Supply Services.
PB-236 766/7GI 6L PC$3.75/MF$2.25

PB-236 768/8GI
On the Estimation of the Arrival Time of Pulse Signals in Gaussian Noise.
PB-236 768/8GI 9D PC$7.00/MF$2.25

PB-236 791/6GI
Prawns of Mobile Bay, Alabama. Volume I, Number 1.
PB-236 791/6GI 6C PC$5.25/MF$2.25

PB-236 850/6GI
Weather Modification by Carbon Dust Absorption of Solar Energy.
PB-236 850/6GI 4A PC$7.00/MF$2.25

PB-236 852/0GI
The Low Encounter Severity Scale (LESS): A Criterion for Criminal Behavior and Recidivism.
PB-236 852/0GI 5K PC$3.25/MF$2.25

PB-236 870/2GI
A Method of Increasing User Influence on Computer Systems.
PB-236 870/2GI 9B PC$3.25/MF$2.25

PB-236 868/7GI
Progress on Polimus for Science and Technology in Developing Nations.
PB-236 868/7GI 5C PC$3.75/MF$2.25

PB-236 882/7GI
Myocardial Infarction Research Unit. Comprehensive Clinical and Laboratory Research.
PB-236 882/7GI 6E PC$8.75/MF$2.25

PB-236 884/3GI
Critical Evaluation of Chemical and Physical Structural Information.
PB-236 884/3GI 7D MF$2.25

PB-236 896/7GI
A Study of the Diesel as a Light-Duty Power Plant.
PB-236 896/7GI 13F PC$9.50/MF$2.25

PB-236 900/7GI
Effects of Changing the Proportions of Automotive Distillate and Gasoline Produced by Petroleum Refining.
PB-236 900/7GI 21D PC$4.25/MF$2.25

PB-236 902/3GI
Direct Beam Solar Radiation. A Digital Computer program.
PB-236 902/3GI 9B PC$3.75/MF$2.25

PB-236 921/1GI
Colorado Water Laws, Compacts, Treaties and Selected Cases.
PB-236 921/1GI 15B PC$7.25/MF$2.25

PB-236 930/7GI
Development of Improved PBI Membrane Systems for Waste Water Recycling at Pasteurization Temperatures.
PB-236 930/7GI 7A PC$4.25/MF$2.25

PB-236 940/3GI
Reverse Osmosis for Spacecraft Wash Water Recycling High Pressure Pump Definition.
PB-236 940/3GI 11K PC$4.75/MF$2.25

PB-236 941/1GI
Reverse Osmosis for Spacecraft Wash Water Recycling Membrane Coupon and Module Evaluation.
PB-236 941/1GI 7A PC$6.25/MF$2.25

PB-236 973/4GI
Better Contracting for Underground Construction.
PB-236 973/4GI 5A PC$3.75/MF$2.25

PB-236 990/8GI
Frequency-Division Multiplex Communications for the Land Mobile Radio Service.
PB-236 990/8GI 17B PC$4.75/MF$2.25

PB-236 991/6GI
A Survey of Certain Performance Characteristics of Television Receivers.
PB-236 991/6GI 17B PC$3.25/MF$2.25

PB-236 992/4GI
Report and Analysis of New York City Monitoring Survey of 150.8-162.0 Megahertz Land Mobile Band.
PB-236 992/4GI 17B PC$3.75/MF$2.25

PB-236 993/2GI
Technical Aspects or Considerations of Frequency Assignment.
PB-236 993/2GI 17B PC$3.75/MF$2.25

PB-236 994/0GI
Test Procedures for Measurement of the Level of RF Energy from Various Devices.
PB-236 994/0GI 14B PC$3.25/MF$2.25

PB-236 996/5GI
Prevention of Pretd Ice Clogging of Water Intakes by Application of Heat.
PB-236 996/5GI 6L PC$3.75/MF$2.25

PB-237 [illegible]GI
Energy Conversion from Coal Utilizing CPU-400 Technology.

PB-237 028/6GI 9A PC$5.75/MF$2.25

PB-237 037/7GI
Mass Transfer in Continuously Operated Agitated Vessels.
PB-237 037/7GI 7D PC$3.25/MF$2.25

PB-237 046/8GI
Bounded and Unbounded Delay Synchronizers and Arbiters.
PB-237 046/8GI 9B PC$3.75/MF$2.25

PB-237 067/4GI
Effects of Noxious Gases on Driver Performance.
PB-237 067/4GI 6F PC$4.25/MF$2.25

PB-237 114/4GI
Disposal of By-Products from Non Regenerable Flue Gas Desulfurization Systems: Interim Report.
PB-237 114/4GI 13B PC$9.25/MF$2.25

PB-237 117/7GI
Applying Fabric Filtration to Coal Fired Industrial Boilers: A Preliminary Pilot Scale Investigation.
PB-237 117/7GI 13B PC$4.75/MF$2.25

PB-237 155/7GI
Asian Seminar and Workshop on Remote Sensing. Held at University of the Philippines Diliman, Quezon City, Luzon, Republic of the Philippines, May 7-8 1973.
PB-237 155/7GI 5I PC$3.75/MF$2.25

PB-237 157/3GI
A Health Manpower Model Evaluation Study. Volume II Health Manpower Model Inventory.
PB-237 157/3GI 6E PC$9.25/MF$2.25

PB-237 179/7GI
The Elastic Cable Under Concentrated and Distributed Live Loads.
PB-237 179/7GI 20K PC$3.75/MF$2.25

PB-237 218/3GI
System Study of Coal Mine Communications.
PB-237 218/3GI 17B PC$3.75/MF$2.25

PB-237 261/3GI
Flow Patterns and Pressure Drop in Concurrent Vapor-Liquid Flow: A State of the Art Report.
PB-237 261/3GI 20D PC$4.75/MF$2.25

PB-237 312/0GI
Effectiveness of the Physician Retraining Program at the University of Puerto Rico.
PB-237 312/0GI 5I PC$3.25/MF$2.25

PB-237 360/5GI
Reducing Water Pollution from Pulp Mill Sulfite Wastes.
PB-237 360/5GI 13B PC$3.75/MF$2.25

PB-237 364/7GI
Field Testing: Application of Combustion Modifications to Control NOx Emissions from Utility Boilers.
PB-237 364/7GI 13B PC$7.25/MF$2.25

PB-237 358/7GI
Regional Earthquake Risk Study.
PB-237 358/7GI 8K PC$11.50/MF$2.25

PB-237 359/5GI
An Evaluation of Selected Technical Specifications and Broadcast Capabilities of the Cable TV System in Somerville, Massachusetts.
PB-237 359/5GI 17B PC$4.25/MF$2.25

PB-237 379/3GI
Mechanisms for Aiding Worker Adjustment to Technological Change. Volume I Conceptual Issues and Evidence. Parts 1 and 2.
PB-237 379/3GI 5I PC$4.75/MF$2.25

PB-237 380/1GI
Adjustment to Technological Change: Summary and Policy Implications.
PB-237 380/1GI 5I PC$3.25/MF$2.25

PB-237 383/5GI
Report of NBL Progress.
PB-237 383/5GI 5B PC$4.25/MF$2.25

PB-237 410/6GI
Remote Sensing for Resource and Environmental Surveys: A Progress Review-1974.
PB-237 410/6GI 2F PC$3.25/MF$2.25

PB-237 421/3GI
Background Information for Standards of Performance: Coal Preparation Plants. Volume 1: Proposed Standards.
PB-237 421/3GI 13B PC$4.25/MF$2.25

PB-237 422/1GI
Process Modifications for Control of Particulate Emissions from Stationary Combustion, Incinerators and Metals.
PB-237 422/1GI 13B PC$3.25/MF$2.25

PB-237 426/2GI
Performance Accountability in Human Service Activities.
PB-237 426/2GI 5K PC$4.25/MF$2.25

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GOVERNMENT REPORTS

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NTIS U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

to depend on hemolymph pressure and action of atrial and other body muscles. (Author)

AD/A-002 172/5GA PCS3.25/MFS2.25
Rand Corp Santa Monica Calif
A COMPARISON OF ALTERNATIVE METHODS FOR ESTIMATING TREATMENT EFFECTS,
Ann W. Haggstrom Aug 73, 13p Rept no. P-5067

Descriptors: *Therapy, Clinical medicine, Efficiency, Mathematical prediction, Mathematical models, Statistical analysis.

A common method for testing the effectiveness of a treatment is to choose two groups of individuals at random and apply the treatment to individuals in one of the two groups, using the untreated individuals (the 'control group') as a standard for making comparisons. The effect of the treatment can then be assessed by comparing the distributions of the responses for the two groups. A statistical mathematical model is described.

AD/A-002 225/1GA PCS3.25/MFS2.25
Office of Naval Research London (England)
VENEREAL DISEASES IN GERMANY AND AUSTRIA,
A. W. Frisch. 13 Sep 74, 12p Rept no. ONRL-R-9-74

Descriptors: *Venereal diseases, *Germany(East and West), *Austria, Diagnosis(Medicine), Serodiagnosis, Chemotherapy, Medical research, Penicillins, Antibiotics, Sensitivity, Neisseria gonorrhoeae, Treponema pallidum.
Identifiers: Syphilis

The German and Austrian patterns of managing sexually transmitted diseases are quite similar. Diagnosis is largely by smear with methylene blue replacing the Gram stain; cultures are not done routinely as in Britain and the United States. It is of some interest to note that the gonococcal complement fixation test is used quite extensively. Case reporting is haphazard and therefore, statistics are not too reliable. Penicillin is still the choice for the treatment of both gonorrhoea and syphilis. Although much research is clinical a surprising amount of solid investigation is being carried out in Munich regarding dye-coupling errors in fluorescence techniques and the use of an animal model to determine if the primary treatment of gonorrhoea really masks syphilis.

AD/A-002 226/9GA PCS3.25/MFS2.25
Office of Naval Research London (England)
MEDICAL RESEARCH COUNCIL, ANNUAL REPORT 1973-74,
Arthur W. Frisch, and Martin Blank. 24 Oct 74, 22p Rept no. ONRL-R-8-74
See also report dated 26 Nov 73, AD-775 227.

Descriptors: *Great Britain, *Medical research, State of the art, Budgets, Policies.

Contents:
Cancer research;
Immunology and cell biology;
Reproduction and endocrinology;
Genetics;
Gastroenterology;
Renal disease;
Cardiovascular disease;
Nutrition;
Prosthetics;
Occupational medicine;
Epidemiology and social medicine;
Neurology;
Psychiatry and psychology.

CEA-R-4592 PCS8.00/MFS2.25
CEA Centre d'Etudes Nucleaires de Fontenay-aux-Roses, 92 (France). Dept. de Protection.
STUDY OF THE MECHANISMS OF EARLY MOBILIZATION OF NON-TRANSFERABLE ELEMENTS IN THE LUNG AFTER INHALATION.
S. Dacquoise. Sep 74, 130p
In French. U.S. Sales Only.

Descriptors: (*Barium 140, *Inhalation), (*Lanthanum 140, Inhalation), (*Cerium 144, Inhalation), (*Calcium 45, Inhalation), Dips, Lungs, Radiation doses, Radioisotopes, Radionuclide kinetics, Sodium 24, Therapy.

For abstract, see NSA 30-12, number 32596.

CONF-731141-(Abstr.) PCS4.00/MFS2.25
Oak Ridge National Lab., Tenn.
THIRD CONFERENCE ON EMBRYONIC AND FETAL ANTIGENS IN CANCER, NOVEMBER 4-7, 1973, KNOXVILLE, TENNESSEE.
N. G. Anderson, J. H. Jr. Coggin, and E. B. Cole. 1973, 46p

Descriptors: (*Carcinogenesis, *Meetings), (*Molecular biology, Meetings), (*Embryos, *Antigens), (*Fetuses, Antigens), Abstracts, Animal cells, Biosynthesis, Genes, Host-cell reactivation, Proteins.

For abstract, see NSA 30-12, number 34514.

CONF-740648-5 PCS4.00/MFS2.25
Oak Ridge National Lab., Tenn.
TRACHEAL GRAFTS.
R. Griesemer, J. Kendrick, and P. Nettesheim. 1974, 20p

Descriptors: (*Trachea, *Grafts), Blood circulation, Carcinomas, Diffusion, Histology, Neoplasms, Rats.

For abstract, see NSA 30-12, number 34525.

CONF-740648-6 PCS4.25/MFS2.25
Oak Ridge National Lab., Tenn.
RESPIRATORY CO-CARCINOGENESIS STUDIES WITH FERRIC OXIDE, A TEST CASE OF CURRENT EXPERIMENTAL MODELS.
D. Creasia, and P. Nettesheim. 1974, 25p

Descriptors: (*Respiratory system, *Neoplasms), Air, Carcinogenesis, Carcinogens, Iron oxides, Particles.

For abstract, see NSA 30-12, number 34526.

CONF-740728-59 PCS4.00/MFS2.25
Universidad de la Republica, Montevideo (Uruguay). Centro de Medicina Nuclear.
QUANTITATIVE EVALUATION OF EXTRACRANIAL NEUROSURGICAL CSF SHUNTS.
E. Touya, W. Perillo, A. Lalanne, J. Gherzi, and O. Luz Souza. 1974, 12p SM-185/72
U.S. Sales Only.

Descriptors: (*Malformations, *Diagnosis), (*Brain, *Scintiscanning), Cerebrospinal fluid, Dips, Fluid flow, Indium 113, Injection, Iron compounds, Isomeric nuclei, Measuring methods, Nuclear medicine, Patients, Pertechnetates, Radionuclide administration, Technetium 99.

For abstract, see NSA 30-12, number 32608.

CONF-740708-51 PCS4.00/MFS2.25
Rijksuniversiteit Utrecht (Netherlands). Institut voor Nucleaire Geneeskunde. Interuniversitair Reactor Instituut, Delft (Netherlands).
EXP 131 I-ASIALO- ALPHA SUB 1 -ACID GLYCOPROTEIN, A NEW PHARMACEUTICAL FOR DYNAMIC LIVER FUNCTION STUDIES.
P. P. van Rijk, C. N. de Graaf, and C. J. A. van den Hamer. 1974. 10p SM-185/70
U.S. Sales Only.

Descriptors: (*Liver, *Scintiscanning), (*Hepatomas, *Diagnosis), Gamma cameras, Glycoproteins, Intravenous injection, Iodine 131, Labeled compounds, Radionuclide kinetics, Radiopharmaceuticals, Rats, Retention, Tissue distribution.

For abstract, see NSA 30-12, number 32609.

CONF-740708-61 PCS4.00/MFS2.25
Rijksuniversiteit Groningen (Netherlands). Academisch Ziekenhuis.
"HARDWARE FUNCTION ANALYSERS" FOR THE ON-LINE ESTIMATION OF DYNAMIC PARAMETERS.
G. Van Hees. 1974, 7p SM-185/99
U.S. Sales Only.

Descriptors: (*Scintiscanning, *Data processing), (*Radionuclide kinetics, *Computer calculations), Analog systems, Counting techniques, Design, Diagnostic techniques, Digital computers, Digital systems, Display devices, Electronic equipment, Nuclear medicine, Organs, Patients, Physiology, Radionuclide administration, Recording systems.

For abstract, see NSA 30-12, number 32610.

N74-34557/6GA PCS4.75/MFS2.25
National Aeronautics and Space Administration, Washington, D.C.
AEROSPACE MEDICINE AND BIOLOGY: A CONTINUING BIBLIOGRAPHY WITH INDEXES, SUPPLEMENT 131, AUGUST 1974.
Aug 74, 81p NASA-SP-7011(131)

Descriptors: *Aerospace medicine, *Bibliographies, *Biological effects, *Exobiology, Aerospace environments, Manned space flight, Physiological effects, Psychological effects.

For abstract, see STAR 12-24

PB-236 751/4GA PCS3.25/MFS2.25
American Academy of Pediatrics, Evanston, Ill.
A DESCRIPTIVE STUDY OF NINE HEALTH-BASED PROGRAMS IN CHILD ABUSE AND NEGLECT.
Final rept. 1 Dec 73-15 Apr 74, Apr 74, 115p* BHSR-75-21

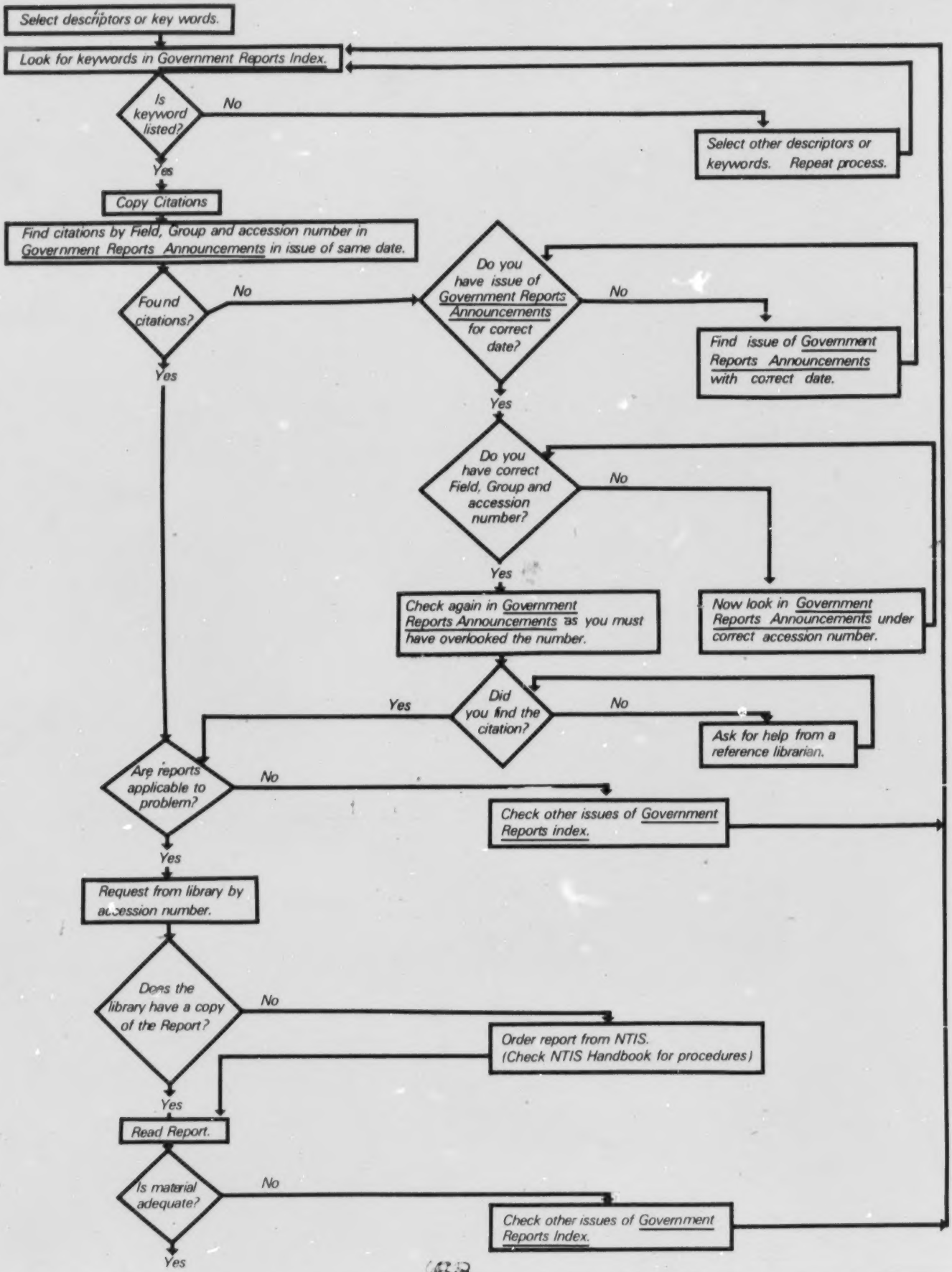
Descriptors: *Children, *Medical services, Project planning, Patients, Hospitals, Injuries, Sociology, Organizations, Questionnaires.
Identifiers: *Neglected children, *Child abuse.

The report is a survey of nine health-based, multidisciplinary programs that address the problem of child abuse and neglect. It examines the procedures and practices of these programs in the context of their communities. It points out their commonalities and differences. The site visits were brief and the reports therefore impressionistic. Nevertheless, inferences can be drawn of the elements that constitute a successful program and areas in need of further development and support.

PB-236 442/7GA PCS8.75/MFS2.25
New York Hospital-Cornell Medical Center, N.Y.
MYOCARDIAL INFARCTION RESEARCH UNIT. COMPREHENSIVE CLINICAL AND LABORATORY RESEARCH.
Annual rept. Jan-Dec 72,
Thomas Killip. Feb 73, 286p NIH/NHLI-67-1439-A73
Contract PH-43-67-1439
See also PB-212 666.

Descriptors: *Myocardial infarction, *Coronary artery disease, Research, Mechanical hearts, Shock(Pathology), Cardiovascular drugs, Hematology, Pathology, Heart function tests, Cardiac arrhythmias, Therapy, Blood circulation, Clinical medicine, Data processing.
Identifiers: Cardiac assist devices, Echocardiography.

ACCESSING NTIS REPORTS BY SUBJECT


Select descriptors or key words.
Look for keywords in Government Reports Index.
Is keyword listed?
No
Select other descriptors or keywords. Repeat process.
Yes
Copy Citations
Find citations by Field, Group and accession number in Government Reports Announcements in issue of same date.
Found citations?
No
Do you have issue of Government Reports Announcements for correct date?
No
Find issue of Government Reports Announcements with correct date.
Yes
Yes
Do you have correct Field, Group and accession number?
No
Yes
Check again in Government Reports Announcements as you must have overlooked the number.
Now look in Government Reports Announcements under correct accession number.
Did you find the citation?
Yes
No
Ask for help from a reference librarian.
Are reports applicable to problem?
No
Check other issues of Government Reports index.
Yes
Request from library by accession number.
Does the library have a copy of the Report?
No
Order report from NTIS. (Check NTIS Handbook for procedures)
Yes
Read Report.
Is material adequate?
No
Check other issues of Government Reports Index.
Yes

Final Report

Project No. 19-012-151-225

NTIS FOR VOCATIONAL EDUCATORS

AND

NTIS HANDBOOK

June 30, 1975

WISCONSIN STATE BOARD OF VOCATIONAL, TECHNICAL
AND ADULT EDUCATION
Madison, Wisconsin

Final Report

Project No. 19-012-151-225

NTIS FOR VOCATIONAL EDUCATORS

AND

NTIS HANDBOOK

Learning Resources
University of Wisconsin-Stout

Menomonie, Wisconsin

June 30, 1975

The research reported herein was performed pursuant to a grant or contract with the Wisconsin State Board of Vocational, Technical and Adult Education, partially reimbursed from an allocation of Federal funds from the U.S. Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official State Board or U.S. Office of Education position or policy.

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CHAPTER I

INTRODUCTION

Summary

An increasing volume of relevant research is being generated throughout the United States by researchers working for a variety of agencies. Access to this information is essential to the efficient development of vocational, technical and adult education programs. However, the large volume of research being produced makes it difficult to identify the studies relevant to specific problems faced by vocational educators. This fact has been recognized through the establishment of the National Technical Information Service (NTIS).

NTIS provides the capability of retrieving relevant studies through the use of specific descriptors which define the content of each study. However, it has been found that utilization of this service has not been as extensive nor as effective as anticipated. One of the problems has been that the ultimate user of the information, the vocational teacher and/or researcher, has not had the motivation, skills and equipment required to utilize efficiently the descriptors, indexes and fiche available.

This project provided monies for developing and disseminating two packages designed to facilitate the use of NTIS.

Statement of the Problem

NTIS For Vocational Educators a motivational package in slide/tape form was designed to acquaint vocational teachers with the scope of the reports announced by NTIS. Many of the reports are pertinent to vocational school course work both for the instructor and the student. Many of the same reports as well as additional reports are of major importance to the business and manufacturing community. The vocational teacher has the opportunity to enhance his position in the community by making this important information available to the local business community.

The NTIS Handbook is a learning package in book form which develops step-by-step simple procedures for accessing Government Reports Index (GRI) and Government Reports Announcements (GRA). Included in this handbook are:

1. Directions for obtaining reports on fiche or paper.
2. A self-test designed to test the users skill in accessing information from this source.
3. Answers to the self-test.
4. A flow chart identifying in brief form procedures for accessing GRI/GRA.

Statement of the Objectives

NTIS For Vocational Educators

The learner will:

1. Become aware of the potential value to him of the NTIS system.

2. Develop the concept of the vocational teacher as the catalyst between the business and manufacturing community and the research of importance to this community.

3. Be motivated to study the NTIS Handbook to learn to access these reports.

NTIS Handbook

The learner will be able to:

1. Select appropriate descriptors for accessing Government Reports Index by subject for information relating to any VTAE substantive area.

2. Access Government Reports Index by:
   Corporate Author
   Personal Author
   Accession Report Number
   Contract Number

3. Locate the abstract in Government Reports Announcements from the alphanumeric citation found in Government Reports Index.

4. Order pertinent documents in microfiche or paper copy from NTIS.

Rationale

The proliferation of research materials and the vast changes in the field of vocational education in the last decade have made it difficult for an instructor to learn about all the relevant research even in his own area.

Every year close to 60,000 new technical reports and publications are produced by Federal Agencies and government-sponsored organizations. These reports contain new information vital to fields like the environment, energy, electronics, the behavioral sciences and many others.

Government Reports Announcements and Government Reports Index serve as an invaluable guide to the largest body of newly-available research and development literature in the United States. Forty billion dollars of research and development information is free to you and your community through these indexes.

CHAPTER II

METHODS USED IN THE STUDY

Learning Resources has had considerable experience and success in the design and production of self-paced learning packages. These packages have been developed in a variety of formats. Procedures that have been evaluated and found to be successful in other packages were used in the designing and production of these two packages.

Every effort was made in the development of the motivational slide/tape series NTIS For Vocational Educators to:

1. Describe the broad scope of these research reports.
2. Provide examples of reports applicable to the substantive areas of VTAE course work.
3. Develop the concept of the vocational teacher as the catalyst between the business and manufacturing community and the research of importance to this community.

The NTIS Handbook describes step-by-step:

1. The arrangement of GRI/GRA.
2. The type of information included.
3. The meaning of each part of a citation.
4. The several indexes.
5. The method of obtaining these reports.

In addition, the Glossary provides the meaning of new terms, the

Flow Chart outlines the accessing of NTIS reports by subject, and a Self-Test allows the learner to test his skill in accessing these publications. Answers are provided for the Self-Test.

Frequent consultation was made with the co-directors of the Center for Vocational, Technical and Adult Education at UW-Stout.

Evaluation and technical advice was also received from the director of Fox Valley Technical Institute as well as from Learning Resources staff not actually involved in the project.

CHAPTER III

PRODUCTION OF NTIS FOR VOCATIONAL EDUCATORS AND NTIS HANDBOOK

The following procedures were used to produce the materials developed for this project.

NTIS for Vocational Educators

1. Consultations on content.
2. Determine treatment.
3. Develop storyboard.
4. Write script.
5. Produce graphics.
6. Produce master set of slides from graphics and location photography.
7. Produce master audio tape (edit and mix narration, music, and sound effects).
8. Assemble final slide/tape (add audible and inaudible advance tones).
9. Reproduce copies of master slide/tape and script.

NTIS Handbook

1. Consultations on content.
2. Design layout of book.
3. Type masters of written content.
4. Shoot black and white photos.
5. Make I.P.S. copies of pages from GRI and GRA.
6. Produce additional graphics.
7. Paste-up all parts and duplicate inside pages.

8. Develop cover design master.

9. Produce 8 x 10 prints of cover master, mount on card stock, and laminate.

10. Assemble handbooks.

CHAPTER IV

RESULTS

NTIS for Vocational Educators a motivational package produced on colored slides with narration on cassette tape is a composite of original art work, photographs of space-age illustrations, and actual sections from GRI and GRA.

The NTIS Handbook a self-paced manual with clear step-by-step instructions for accessing GRI and GRA is produced from typed copy on an off-set press. The manual is in black and white with some colored sections. Photographs and photocopied sections from GRI and GRA are used extensively to acquaint the user with format and content.

The flow-chart in the NTIS Handbook outlines a method of accessing NTIS reports by subject. Directions requiring definite action from the user are enclosed in rectangles. Questions requiring either a "yes" or "no" response are enclosed in diamonds.

A direction for action will follow either a "yes' or "no" response. The "yes" response will lead the user by line and arrow to the next direction. A "no" response will provide an additional direction. The user will then be returned to the correct entry in the flow chart.

Upon completion of the two packages, copies were reproduced for delivery as follows:

1 copy of each to Department of Public Instruction

2 copies of each to State Board of Vocational, Technical and Adult Education

1 copy of NTIS Handbook to each VTAE district.

In its present form, NTIS for Vocational Educators will be equally appropriate for use with group presentations or to be viewed individually and includes:

1. Objectives
2. Script
3. Narration on audio cassette
4. Slides

The NTIS Handbook which is self-paced for individual use may be duplicated and used in group situations. It includes:

1. Handbook
2. Black and white master's of the Handbook
3. GRI/GRA sample pages
4. GRI/GRA Self-Test
5. Answers to GRI/GRA Self Test

Workshops

Staff planning workshops on using NTIS materials may wish to adapt this outline to conform to objectives identified for specific

workshops.

Preparation:

1. Set up for slide/tape
2. Preview materials
3. Duplicate copies of handbooks, sample pages, self-test (enough for each workshop participant)
4. Gather together all NTIS material for reference

Workshop:

1. Introduction
2. Show NTIS (slide/tape)
3. Discussion of value of NTIS
4. Have participants work through Handbooks
5. Give self-test
6. Review answers to self-test
7. Further discussion and questions
8. Show participants location of NTIS materials in library